As confidentially submitted to the Securities and Exchange Commission on December 19, 2014

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

KemPharm, Inc.

(Exact name of registrant as specified in its charter)

Delaware	2834	20-5894398
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

2656 Crosspark Road, Suite 100
Coralville, IA 52241
(319) 665-2575

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Travis C. Mickle, Ph.D.
President and Chief Executive Officer
KemPharm, Inc.
2656 Crosspark Road, Suite 100
Coralville, IA 52241
(319) 665-2575

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

James C. T. Linfield Brent B. Siler Matthew P. Dubofsky Cooley LLP 380 Interlocken Crescent, Suite 900 Broomfield, CO 80021 (720) 566-4000	Gordon K. Johnson Chief Operating Officer and Chief Financial Officer KemPharm, Inc. 2656 Crosspark Road, Suite 100 Coralville, IA 52241 (319) 665-2575	David W. Pollak Morgan, Lewis & Bockius LLP 101 Park Avenue New York, NY 10178 (212) 309-6058

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering. ☐

CALCULATION OF REGISTRATION FEE

Title of Securities being Registered	Proposed Maximum Aggregate Offering Price(1)(2)	Amount of Registration Fee
Common Stock, $0.0001 par value per share	$	$

(1) In accordance with Rule 457(o) under the Securities Act of 1933, as amended, the number of shares being registered and the proposed maximum offering price per share are not included in this table.

(2) Estimated solely for purposes of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 under the Securities Exchange Act of 1934. (Check one):

Large Accelerated Filer ☐ Accelerated Filer ☐ Non-accelerated Filer ☒ Smaller Reporting Company ☐

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is declared effective. This preliminary prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS (Subject to Completion) **Dated December 19, 2014**

Shares

Common Stock

This is an initial public offering of shares of our common stock. We are offering shares of our common stock. Prior to this offering, there has been no public market for our common stock. We intend to apply for listing of our common stock on The NASDAQ Global Market under the symbol "KMPH." We expect the initial public offering price to be between $ and $ per share.

We are an "emerging growth company" under applicable Securities and Exchange Commission Rules and will be subject to reduced public company reporting requirements for this prospectus and future filings.

Our business and an investment in our common stock involve significant risks. These risks are described under the caption "Risk Factors" beginning on page 12 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

	Per Share	*Total*
Public Offering Price	**$**	**$**
Underwriting Discount	**$**	**$**
Proceeds to KemPharm (Before Expenses)	**$**	**$**

(1) See "Underwriting" in this prospectus for a description of compensation payable to the underwriters.

The underwriters may also purchase up to an additional shares from us at the public offering price, less the underwriting discount, within 30 days from the date of this prospectus to cover overallotments.

The underwriters expect to deliver the shares against payment in New York, New York on , 2015.

Cowen and Company **RBC Capital Markets**

Canaccord Genuity **Oppenheimer & Co.**

, 2015

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You should rely only on the information contained in this prospectus and any free writing prospectus prepared by or on behalf of us or to which we have referred you. We have not authorized anyone to provide you with information that is different from that contained in such prospectuses. We are offering to sell shares of our common stock, and seeking offers to buy shares of our common stock, only in jurisdictions where such offers and sales are permitted. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of our common stock.

Until and including , 2015, 25 days after the date of this prospectus, all dealers that buy, sell or trade our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to unsold allotments or subscriptions.

For investors outside of the United States: neither we nor any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our financial statements and the related notes thereto and the information set forth under the sections "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," in each case included in this prospectus. Unless the context otherwise requires, we use the terms "KemPharm," "company," "we," "us" and "our" in this prospectus to refer to KemPharm, Inc.

Overview

We are a clinical-stage specialty pharmaceutical company engaged in the discovery and development of proprietary prodrugs that we believe will be improved versions of widely prescribed, approved drugs. We employ our Ligand Activated Therapy, or LAT, platform technology to create our prodrugs, each of which is a new molecular entity, or NME. We believe our NME prodrugs will be eligible for composition-of-matter patent protection. We intend to employ the regulatory pathway under Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, otherwise known as 505(b)(2),to reduce the time, risk and expense associated with drug development.

Our most advanced product candidate, KP201/APAP, consists of KP201, our NME prodrug of hydrocodone, formulated in combination with acetaminophen, or APAP. We are developing KP201/APAP as an immediate release, or IR, product candidate for the treatment of acute moderate to moderately severe pain. We designed KP201/APAP to deter tampering and abuse by selecting a molecular structure that prevents the release of the opioid upon crushing, physical manipulation and other commonly employed extraction techniques. We believe this approach to abuse-deterrence at the molecular level may be more effective than many formulation-based abuse-deterrence technologies, which combine the opioid drug with another drug or use an abuse-deterrent capsule or physical matrix.

We designed KP201/APAP with abuse-deterrent properties to address the epidemic of opioid abuse in the United States. Prescription drug overdose death rates in the United States have increased five-fold since 1980, and by 2009, drug overdose deaths outnumbered deaths due to motor vehicle crashes. The increasing negative social consequences and costs of prescription drug abuse led the U.S. Food and Drug Administration, or FDA, to publish draft guidance in January 2013 with regard to the evaluation and labeling of abuse-deterrent opioids. The FDA has subsequently approved abuse-deterrent labeling language in the product labels for four abuse-deterrent opioids: OxyContin, Targiniq ER, Embeda and Hysingla.

Based on our preclinical studies, we also believe KP201/APAP may have the potential to reduce the incidence of opioid-induced constipation, or OIC, as compared to approved hydrocodone/APAP combination products. OIC is a common side effect of treatment with opioids.

We believe that KP201/APAP has the potential to be the first FDA-approved IR product for the treatment of pain with the efficacy of hydrocodone/APAP combination products and abuse-deterrent labeling. We have completed a bioavailability trial comparing KP201/APAP to Norco, an approved hydrocodone/APAP combination product, and based on this trial, the FDA has confirmed KP201/APAP is bioequivalent to Norco. We are conducting clinical trials that are designed with the goal of obtaining abuse-deterrent claims in our product label for KP201/APAP. We intend to submit a new drug application, or NDA, under 505(b)(2), otherwise known as a 505(b)(2) NDA, for KP201/APAP to the FDA in the third quarter of 2015. We believe our NDA will receive priority review like other abuse-deterrent opioids.

We are also building a pipeline of additional NME prodrug product candidates that target large market opportunities in pain, attention deficit hyperactivity disorder, or ADHD, and other central nervous system indications. We anticipate reporting human proof-of-concept, or POC, data for three additional product candidates in 2016 and 2017.

Key members of our senior management, while at New River Pharmaceuticals Inc., were instrumental in the development of Vyvanse, a prodrug of amphetamine indicated for ADHD, through FDA approval. New River was acquired by Shire plc in 2007 and Vyvanse generated over $1.2 billion in sales in 2013.

As of September 30, 2014, our patent portfolio consisted of 20 granted patents and 86 pending patent applications worldwide, including a granted U.S. composition-of-matter patent covering KP201, a pending U.S. patent application covering KP201-related compositions-of-matter and a granted U.S. composition-of-matter patent covering the prodrug underlying one of our other product candidates.

Our LAT Prodrug Platform Technology

We use our LAT platform technology to discover and develop NME prodrugs that improve one or more of the attributes of approved drugs, such as susceptibility to abuse, side-effect profile, bioavailability and safety. We create our NME prodrugs by chemically attaching one or more molecules, referred to as ligands, to an FDA-approved drug, referred to as the parent drug. When the prodrug is administered to a patient as intended, human metabolic processes, such as those in the gastrointestinal, or GI, tract, separate the ligand from the prodrug and release the parent drug, which can then exert its therapeutic effect. We believe that our LAT platform technology offers the following potential benefits:

- ***Improved drug properties***. We seek to develop NME prodrugs with improved attributes over FDA-approved drugs, such as reduced susceptibility to abuse, better side-effect profile, enhanced bioavailability and increased safety. For example, the molecular structure of KP201/APAP is designed to resist tampering and deter abuse, and we believe KP201/APAP may have the potential to reduce the incidence of OIC as compared to hydrocodone/APAP combination products.
- ***Composition-of-matter patent protection*.** Our prodrugs combine an FDA-approved parent drug with one or more ligands to create NMEs and may be eligible for patent protection as novel compositions of matter, provided that all other applicable requirements are met.
- ***505(b)(2) NDA pathway*.** Our NME prodrugs may be eligible to use the 505(b)(2) NDA pathway if we are able to demonstrate the bioequivalence of one of our product candidates to an appropriate approved drug. This may allow us to avoid the significant time and expense of conducting large clinical trials.

Our Pipeline of NME Prodrug Product Candidates

We have employed our LAT platform technology to create a portfolio of product candidates that we believe will offer significant improvements over FDA-approved and widely prescribed drugs. Our pipeline of product candidates is summarized in the table below:

Indication / Parent Drug	Product Candidate	Development Status	Key Milestone
Pain			
Hydrocodone (IR)	KP201/APAP	Clinical Trials	NDA Filing – Q3 2015
Hydromorphone (extended release)	KP511/ER	Preclinical	Human POC Data – 2016
Oxycodone (extended release)	KP606/ER	Preclinical	Human POC Data – 2017
ADHD			
Methylphenidate (controlled release)	KP415	Preclinical	Human POC Data – 2016
Multiple CNS Disorders			
Quetiapine	KP303	Preclinical	Preclinical Development

KP201/APAP

We are developing KP201/APAP for the treatment of acute moderate to moderately severe pain. KP201/APAP is designed to be an abuse-deterrent opioid product with a reduced side-effect profile as compared to the existing standard-of-care, IR hydrocodone/APAP combination products, such as Vicodin, Norco and Lortab. IMS Health Incorporated, or IMS, a healthcare information firm, estimates that IR hydrocodone bitartrate formulated in combination with APAP, or hydrocodone/APAP, products accounted for 127 million prescriptions in the United States in 2013. We believe that KP201/APAP will provide abuse-deterrence and may provide an improved side-effect profile compared to these products while offering equivalent efficacy.

KP201/APAP employs our molecular-based approach to abuse deterrence and is designed not to release its hydrocodone component until it is metabolized in the GI tract following oral administration. We believe the KP201 prodrug does not release hydrocodone effectively upon intranasal administration and has very poor solubility in blood, water and other solvents, thus rendering it unsuitable for intravenous, or IV, administration. We believe KP201/APAP is highly tamper-resistant and is stable under conditions that can potentially defeat many other abuse-deterrent technologies.

Based on our preclinical studies, we believe KP201/APAP may have the potential to reduce the incidence of OIC as compared to other hydrocodone/APAP combination products. It is widely believed that the binding of opioids to the peripheral μ-opioid receptors in the GI tract is the primary cause of OIC. KP201 has a very low binding affinity to the μ-opioid receptors in the GI tract and we believe that after oral administration it does not effectively interact with these receptors while it is present in the GI tract. Consequently, we believe that the intestinal μ-opioid receptors never come in contact with significant concentrations of hydrocodone, thus potentially reducing the incidence of OIC.

We plan to seek approval of KP201/APAP under the 505(b)(2) NDA pathway, which permits companies to rely upon the FDA's previous findings of safety and effectiveness for one or more approved products and published medical and scientific literature. We completed a bioavailability trial comparing KP201/APAP to Norco and, based on this trial, the FDA has confirmed that KP201/APAP is bioequivalent to Norco.

To rely on the 505(b)(2) NDA pathway for KP201/APAP, we are also required to establish the safety and effectiveness of APAP and the safety and effectiveness of hydrocodone separately through other methods. We recently completed a bridging bioavailability trial of KP201/APAP and Ultracet, an FDA-approved tramadol/APAP combination product. The data from this trial suggests comparable bioavailability between the APAP in KP201/APAP and the APAP in Ultracet. We intend to reference the FDA's prior findings of safety and effectiveness for the APAP component of Ultracet in our 505(b)(2) NDA. We also plan to reference in our 505(b)(2) NDA published medical and scientific literature that establish the safety and effectiveness of hydrocodone. Based on communications with the FDA, we believe that no additional efficacy trials will be required for KP201/APAP.

We are also conducting three clinical trials that will generate additional data that we expect to include in our 505(b)(2) NDA submission. Two of these trials are human abuse liability trials and are designed with the goal of obtaining abuse-deterrent claims in our product label for KP201/APAP. We expect data from the first of these trials, an oral human abuse liability trial, in the first quarter of 2015 and data from the second trial, an intranasal human abuse liability trial, in the second quarter of 2015.

Our third ongoing trial is a human GI motility trial designed to evaluate the ability of KP201/APAP to preserve GI motility as compared to hydrocodone/APAP combination products as a surrogate for KP201/APAP's ability to reduce the incidence of OIC compared to those products. This trial will not be sufficient to support a comparative claim. We expect to report data from this trial in the first quarter of 2015. We anticipate submitting our 505(b)(2) NDA for KP201/APAP to the FDA in the third quarter of 2015 and we expect that KP201/APAP, like other abuse-deterrent opioids, will receive priority review.

Additional NME Prodrug Product Candidates

KP511/ER

KP511/ER is our extended release, or ER, formulation of KP511, our NME prodrug of hydromorphone, which we are developing for the treatment of moderate to severe pain. KP511/ER is designed to be an abuse-deterrent opioid product and may have a reduced side-effect profile as compared to approved ER hydromorphone products, such as Exalgo. IMS estimates that in 2013 there were 3.5 million dispensed prescriptions of hydromorphone in the United States. Currently, there are no hydromorphone products approved in the United States with an abuse-deterrent label.

Based on our preclinical data, we believe that KP511 may release hydromorphone after oral administration in humans in a manner that is comparable to the appropriate approved hydromorphone drug. We believe KP511 is highly tamper-resistant and is stable under conditions that can potentially defeat many formulation-based abuse-deterrent technologies. We plan to seek approval of KP511/ER under the 505(b)(2) NDA pathway. We anticipate reporting human proof-of-concept data for KP511/ER in 2016.

KP415

KP415 is our NME prodrug of methylphenidate, which we are developing for the treatment of ADHD. The ADHD market is largely served by the stimulant products methylphenidate and amphetamine. KP415 is designed to be a controlled release abuse-deterrent methylphenidate product. We believe a new product in the form of a prodrug that has abuse-deterrent features and a more consistent controlled release drug delivery mechanism may provide a preferred treatment option in this large market segment. While methylphenidate is available as a generic product, the branded formulations, Concerta, Focalin and Ritalin, accounted for sales of $743 million in 2013.

Based on our preclinical data, we believe KP415, if approved by the FDA, may have valuable product features and provide significant benefits to patients, physicians and society when compared to other FDA-approved and widely prescribed methylphenidate products. We plan to seek approval of KP415 under the 505(b)(2) NDA pathway. We anticipate reporting human proof-of-concept data for KP415 in 2016.

Other Product Candidates

We are using our LAT platform technology to develop other product candidates in pain and CNS indications. One example is KP606/ER, an ER formulation of KP606, our NME prodrug of oxycodone, which we are developing for the treatment of moderate to severe pain. KP606/ER is designed to be an ER abuse-deterrent opioid product and may have a reduced incidence of OIC as compared to OxyContin. We plan to seek approval of KP606/ER under the 505(b)(2) FDA pathway. We anticipate reporting human proof-of-concept data for KP606/ER in 2017.

Another example is KP303, our NME prodrug of quetiapine, which is currently in preclinical development and which we are developing for the potential treatment of CNS disorders such as schizophrenia, bipolar disorder and major depressive disorder.

Our Strategy

Our goal is to be a leading specialty pharmaceutical company focused on the discovery, development and commercialization of our novel and proprietary NME prodrugs. Key components of our strategy are:

- ***Secure FDA approval for KP201/APAP as the first IR pain therapeutic product with the efficacy of hydrocodone/APAP combination products and an abuse-deterrent label.*** We plan to submit an NDA to the FDA in the third quarter of 2015. We expect that the approval process will be conducted according to the 505(b)(2) NDA pathway and will be subject to priority review, with potential approval as early as mid-2016. Prior to product launch, the DEA would then need to determine the controlled substance schedule of KP201/APAP, taking into account the recommendation of the FDA, which we expect would occur as early as 2017.
- ***Commercialize KP201/APAP***. We intend to evaluate U.S. commercialization options for KP201/APAP, if it is approved by the FDA, including pursuing a commercial collaboration, building a proprietary sales force, utilizing a contract sales force or pursuing a strategic transaction.
- ***Advance the development of our other pipeline product candidates.*** We plan to advance KP511/ER, KP415 and KP606/ER through human proof-of-concept trials to evaluate their bioequivalence to appropriate FDA-approved drugs, and we expect to report data from these trials in 2016 and 2017.
- ***Leverage our LAT platform technology to develop additional product candidates.*** We plan to employ our LAT platform technology to develop additional NME prodrugs that have improved properties over approved drugs and address unmet medical needs in large, established markets.
- ***Continue to build a global intellectual property portfolio.*** We intend to vigorously pursue composition-of-matter patent protection for our NME prodrugs in markets covering a majority of the global commercial opportunity.

Risks Associated with Our Business

Our business is subject to a number of risks of which you should be aware before making a decision to invest in our common stock. These risks are discussed more fully in the “Risk Factors” section of this prospectus. These risks include the following:

- We are very early in our development efforts and have only one product candidate, KP201/APAP, that has commenced clinical trials. All of our other product candidates are still in preclinical development. If we are unable to commercialize our product candidates, including KP201/APAP, or experience significant delays in doing so, our business will be harmed.

- Clinical drug development involves a lengthy and expensive process, with an uncertain outcome. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.
- We have incurred significant losses since our inception. We expect to incur losses for the next several years and may never achieve or maintain profitability.
- We will need substantial additional funding to pursue our business objectives. If we are unable to raise capital when needed, we could be forced to delay, reduce or altogether cease our NME prodrug development programs or commercialization efforts.
- We contract with a third party for the manufacture of KP201/APAP and with a sole source supplier for the manufacture of bulk quantities of KP201. This reliance on third-party manufacturers increases the risk that we will not have sufficient quantities of KP201 or KP201/APAP or such quantities at an acceptable cost.
- If we are unable to obtain and maintain patent protection for our technology and product candidates or if the scope of the patent protection obtained is not sufficiently broad, our ability to successfully commercialize our technology and product candidates may be impaired.
- Our ability to market and promote our products in the United States by describing their abuse-deterrent features will be determined by the FDA-approved labeling for them.
- We have not completed any clinical trials in humans evaluating our product candidates' ability to reduce the incidence of OIC and we may not be able to include language in the label related to preserving GI motility or reducing the incidence of OIC.
- If the FDA does not conclude that our product candidates are sufficiently bioequivalent, or have comparable bioavailability, to approved drugs, or if the FDA does not allow us to pursue the 505(b)(2) NDA pathway as anticipated, the approval pathway for our product candidates will likely take significantly longer, cost significantly more and entail significantly greater complications and risks than anticipated, and the FDA may not ultimately approve our product candidates.
- If we are unable to establish sales, marketing and distribution capabilities for our product candidates, we may not be successful in commercializing those product candidates in the United States, if and when they are approved.
- Even if we are able to commercialize any product candidates, they may be subject to unfavorable pricing regulations, third-party coverage and reimbursement policies or healthcare reform initiatives.

Corporate Information

We were incorporated under the laws of the State of Iowa in October 2006 and were reincorporated under the laws of the State of Delaware in May 2014. Our principal executive offices are located at 2656 Crosspark Road, Suite 100, Coralville, IA 52241 and our telephone number is (319) 665-2575. Our website address is *www.kempharm.com*. The information contained on our website is not incorporated by reference into this prospectus, and you should not consider any information contained on, or that can be accessed through, our website as part of this prospectus or in deciding whether to purchase our common stock.

We have proprietary rights to a number of trademarks used in this prospectus which are important to our business, including KemPharm® and the KemPharm logo. All other trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

Implications of Being an Emerging Growth Company

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. An emerging growth company may take advantage of relief from certain reporting requirements and other burdens that are otherwise applicable generally to public companies. These provisions include:

- presentation of only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- exemption from the auditor attestation requirement on the effectiveness of our internal controls over financial reporting;
- reduced disclosure about our executive compensation arrangements; and
- no requirements for non-binding advisory votes on executive compensation or golden parachute arrangements.

We may take advantage of these provisions for up to five years or such earlier time that we no longer qualify as an emerging growth company. We would cease to be an emerging growth company if we have more than $1.0 billion in annual revenue, have more than $700 million in market value of our capital stock held by non-affiliates or issue more than $1.0 billion of non-convertible debt over a three-year period. We may choose to take advantage of some but not all of these reduced burdens. For example, we have taken advantage of the reduced reporting requirements with respect to disclosure regarding our executive compensation arrangements, have presented only two years of audited financial statements, have presented reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure and have taken advantage of the exemption from auditor attestation on the effectiveness of our internal controls over financial reporting. To the extent that we take advantage of these reduced burdens, the information that we provide stockholders may be different than you might obtain from other public companies in which you hold equity interests.

In addition, under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

The Offering

Common stock offered by us	shares
Common stock to be outstanding immediately after this offering	shares
Option to purchase additional shares	We have granted the underwriters an option for a period of 30 days from the date of this prospectus to purchase up to additional shares of our common stock.
Use of proceeds	We estimate that the net proceeds to us from this offering, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately $ million, assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus. We anticipate that the net proceeds from this offering will be used to complete our planned clinical trials and seek regulatory approval of KP201/APAP, to fund the research and development of the other preclinical NME prodrug product candidates in our pipeline, and for working capital and general corporate purposes. See “Use of Proceeds” for additional information.
Risk factors	You should read the “Risk Factors” section of this prospectus for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Proposed NASDAQ Global Market symbol	KMPH

The number of shares of our common stock that will be outstanding after this offering is based on 59,594,897 shares of common stock outstanding as of September 30, 2014, and excludes:

- 2,964,000 shares of our common stock issuable upon the exercise of stock options outstanding under our existing incentive stock plan as of September 30, 2014, at a weighted average exercise price of $0.72 per share;
- 19,973,306 shares of our common stock issuable upon exercise of warrants outstanding as of September 30, 2014, at a weighted average exercise price of $0.76 per share;
- 13,233,885 shares of our common stock issuable upon conversion of principal and accrued interest underlying a convertible note outstanding as of September 30, 2014, assuming a conversion date of September 30, 2014; and
- 17,000,000 shares of our common stock reserved for future issuance under our 2014 equity incentive plan, which will become effective upon completion of this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan.

Except as otherwise indicated herein, all information in this prospectus, including the number of shares that will be outstanding after this offering, assumes or gives effect to:

- a -for- reverse stock split of our common stock expected to be completed prior to the completion of this offering;
- the conversion or reclassification of all outstanding shares of our redeemable convertible preferred stock into an aggregate of 41,737,048 shares of our common stock, which will automatically occur upon the closing of this offering;
- the conversion of outstanding warrants to purchase shares of redeemable convertible preferred stock into warrants to purchase common stock upon the closing of this offering; and
- no exercise of the underwriters' option to purchase additional shares of common stock.

Summary Financial Data

The tables below provide summary financial data for the periods indicated. We have derived the summary statement of operations data for the years ended December 31, 2012 and 2013 from our audited financial statements appearing elsewhere in this prospectus. We have derived the summary statement of operations data for the nine months ended September 30, 2013 and 2014 and balance sheet data as of September 30, 2014 from our unaudited interim financial statements appearing elsewhere in this prospectus.

The financial data for the nine months ended September 30, 2013 and 2014 and as of September 30, 2014 includes, in the opinion of our management, all adjustments, consisting only of normal recurring adjustments, that are necessary for a fair presentation of our financial position and results of operations for these periods. Our historical results are not necessarily indicative of the results to be expected in the future, and our operating results for the nine months ended September 30, 2014 are not necessarily indicative of the results that may be expected for the entire year ending December 31, 2014 or any other future period.

You should read this summary financial data together with the historical financial statements and related notes to those statements, as well as "Management's Discussion and Analysis of Financial Condition and Results of Operations," which are included elsewhere in this prospectus.

	Year Ended December 31,		Nine Months Ended September 30,	
	2012	2013	2013	2014
Statement of operations data:				
Revenue	$ –	$ –	$ –	$ –
Operating expenses:				
Research and development	2,994,726	3,366,932	2,573,028	6,005,818
General and administrative	2,342,343	1,350,971	947,226	2,949,339
Gain on sale of assets	(5,066,093)	–	–	–
Total operating expenses	270,976	4,717,903	3,520,254	8,955,157
Loss from operations	(270,976)	(4,717,903)	(3,520,254)	(8,955,157)
Other income (expense)	163,332	(528,086)	120,258	(3,708,684)
Loss before income taxes	(107,644)	(5,245,989)	(3,399,996)	(12,663,841)
Income tax benefit	37,228	19,544	14,550	48,652
Net loss	$ (70,416)	$ (5,226,445)	$ (3,385,446)	$(12,615,189)
Net loss per share:				
Basic and diluted	$ (0.00)	$ (0.29)	$ (0.19)	$ (0.71)
Basic and diluted, pro forma[1]		$ (0.10)		$ (0.22)
Weighted average common shares outstanding:				
Basic and diluted	17,843,967	17,857,849	17,857,849	17,857,849
Basic and diluted, pro forma[1]		54,325,603		58,365,253

(1) See Note 15 to our Financial Statements and Note 10 to our Unaudited Condensed Financial Statements included elsewhere in this prospectus for an explanation of the method used to calculate the pro forma basic and diluted net loss per share and the pro forma basic and diluted weighted average common shares outstanding.

The following table presents our summary balance sheet data:

- on an actual basis as of September 30, 2014;
- on a pro forma basis to give effect to:
  - the conversion or reclassification of all outstanding shares of our redeemable convertible preferred stock into an aggregate of 41,737,048 shares of our common stock, which will occur automatically upon the closing of this offering; and
  - the conversion of outstanding warrants to purchase shares of redeemable convertible preferred stock into warrants to purchase common stock upon the closing of this offering; and
- on a pro forma as adjusted basis to give further effect to our sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	As of September 30, 2014		
	Actual	Pro Forma	Pro Forma As Adjusted
Balance sheet data:			
Cash and cash equivalents	$ 19,022,563	$ 19,022,563	
Working capital	15,527,856	15,527,856	
Total assets	21,531,353	21,531,353	
Convertible notes, net of discount	7,077,966	7,077,966	
Term notes, net of discount	10,616,950	10,616,950	
Derivative and warrant liability	12,744,802	12,744,802	
Total liabilities	34,038,062	34,038,062	
Redeemable convertible preferred stock	24,206,612	–	
Total stockholders' (deficit) equity	(36,713,321)	(12,506,709)	

The pro forma as adjusted information presented in the summary balance sheet data is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing. Each $1.00 increase or decrease in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease each of cash and cash equivalents, working capital, total assets and total stockholders' equity on a pro forma as adjusted basis by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. Similarly, each increase or decrease of 1.0 million shares offered by us at the assumed initial public offering price would increase or decrease each of cash and cash equivalents, working capital, total assets and total stockholders' equity on a pro forma as adjusted basis by $ million.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before you invest in our common stock, you should carefully consider the following risks, as well as general economic and business risks, and all of the other information contained in this prospectus. Any of the following risks could have a material adverse effect on our business, operating results and financial condition and cause the trading price of our common stock to decline, which would cause you to lose all or part of your investment. When determining whether to invest, you should also refer to the other information contained in this prospectus, including our financial statements and the related notes thereto.

Risks Related to Our Financial Position and Capital Needs

We have incurred significant losses since our inception. We expect to incur losses over the next several years and may never achieve or maintain profitability.

We incurred net losses of $0.1 million, $5.2 million and $12.6 million for the years ended December 31, 2012 and 2013 and the nine months ended September 30, 2014, respectively. As of September 30, 2014, we had an accumulated deficit of $38.3 million. We have financed our operations to date with $48.8 million raised in private placements of redeemable convertible preferred stock, convertible promissory notes and term debt.

We have devoted substantially all of our financial resources and efforts to research and development, including preclinical studies and clinical trials. We are still in the early stages of development of many of our product candidates, and we have not completed development of any of our product candidates. We expect to continue to incur significant expenses and operating losses over the next several years. Our net losses may fluctuate significantly from quarter to quarter and year to year. We anticipate that our expenses will increase substantially as we:

- continue our ongoing studies and clinical trials evaluating, among other things, KP201/APAP's abuse-deterrent features and its potential to preserve GI motility as compared to hydrocodone/APAP combination products as a surrogate for KP201/APAP's ability to reduce the incidence of OIC;
- seek regulatory approvals for KP201/APAP and for any other product candidates that successfully complete clinical trials;
- continue research and preclinical development and initiate clinical trials of our other product candidates;
- seek to discover and develop additional product candidates;
- potentially establish a commercialization infrastructure and scale up external manufacturing and distribution capabilities to commercialize any product candidates for which we may obtain regulatory approval;
- adapt our regulatory compliance efforts to incorporate requirements applicable to marketed products;
- maintain, expand and protect our intellectual property portfolio;
- hire additional clinical, manufacturing and scientific personnel;
- add operational, financial and management information systems and personnel, including personnel to support our prodrug development and potential future commercialization efforts; and
- incur additional legal, accounting and other expenses in operating as a public company.

To become and remain profitable, we must succeed in developing and eventually commercializing NME prodrugs that generate significant revenue. This will require us to be successful in a range of challenging activities, including completing preclinical studies and clinical trials and obtaining regulatory approval of our product candidates, and manufacturing, marketing and selling any product candidates

for which we may obtain regulatory approval, as well as discovering and developing additional product candidates. We are only in the preliminary stages of most of these activities. We may never succeed in these activities and, even if we do, may never generate revenue that is significant enough to achieve profitability.

Because of the numerous risks and uncertainties associated with prodrug development, we are unable to accurately predict the timing or amount of expenses or when, or if, we will be able to achieve profitability. If we are required by regulatory authorities to perform studies in addition to those currently expected, or if there are any delays in the initiation and completion our clinical trials or the development of any of our product candidates, our expenses could increase.

Even if we achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress our value and could impair our ability to raise capital, expand our business, maintain our research and development efforts, obtain product approvals, diversify our product offerings or continue our operations. A decline in our value could also cause you to lose all or part of your investment.

We will need substantial additional funding to pursue our business objectives. If we are unable to raise capital when needed, we could be forced to delay, reduce or altogether cease our prodrug development programs or commercialization efforts.

We believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will enable us to fund our operating expenses and capital expenditure requirements for at least the next 18 months. However, we will need to obtain substantial additional funding in connection with our continuing operations. Our future capital requirements will depend on many factors, including:

- the progress and results of our studies and clinical trials for KP201/APAP;
- the scope, progress, results and costs of preclinical development, laboratory testing and clinical trials for our other product candidates;
- the ability to obtain abuse-deterrent claims and GI motility or OIC related-language in the labels for our product candidates, including KP201/APAP;
- the number and development requirements of other product candidates that we may pursue;
- the costs, timing and outcome of regulatory review of our product candidates;
- the efforts necessary to institute post-approval regulatory compliance requirements;
- the costs and timing of future commercialization activities, including product manufacturing, marketing, sales and distribution, for any of our product candidates for which we receive marketing approval;
- the revenue, if any, we receive from commercial sales of our product candidates for which we obtain marketing approval, which may be affected by market conditions, including obtaining coverage and adequate reimbursement of our product candidates from third-party payors, including government programs and managed care organizations, and competition within the therapeutic class to which our product candidates are assigned;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending any intellectual property-related claims; and
- the extent to which we acquire or in-license other product candidates and technologies.

Identifying potential product candidates and conducting preclinical studies and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain regulatory approval for our product candidates or claims necessary to make such candidates profitable, and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial

revenue, if any, will be derived from sales of NME prodrug products that we do not expect to be commercially available for a number of years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all. To the extent that we raise additional capital through the sale of equity or convertible debt securities, or exercise our right to borrow additional tranches under our credit facility, or the Deerfield facility, with Deerfield Private Design Fund III, L.P., or Deerfield, the terms of these securities or this debt may restrict our ability to operate. The Deerfield facility includes, and any future debt financing and equity financing, if available, may involve agreements that include, covenants limiting and restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, entering into profit-sharing or other arrangements or declaring dividends. If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may be required to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or altogether cease our research and development programs or future commercialization efforts.

Our operating history may make it difficult for you to evaluate the success of our business to date and to assess our future viability.

We commenced active operations in 2006, and our operations to date have been largely focused on raising capital, identifying potential product candidates, broadening our expertise in the development of our NME prodrugs, undertaking preclinical studies and conducting clinical trials. We have not yet demonstrated an ability to obtain regulatory approvals, manufacture a prodrug on a commercial scale or arrange for a third party to do so, or conduct sales and marketing activities necessary for successful commercialization or enter into a collaboration for that purpose. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history.

We may encounter unforeseen expenses, difficulties, complications, delays and other known or unknown factors in achieving our business objectives. We will need to transition at some point from a company with a research and development focus to a company capable of supporting commercial activities. We may not be successful in such a transition.

We expect our financial condition and operating results to continue to fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. Accordingly, you should not rely upon the results of any quarterly or annual periods as indications of future operating performance.

Risks Related to the Development of Our Product Candidates

Our research and development is focused on discovering and developing proprietary NME prodrugs, and we are taking an innovative approach to discovering and developing prodrugs, which may never lead to marketable NME prodrug products.

A key element of our strategy is to use our LAT platform technology to build a pipeline of NME prodrugs and progress product candidates based on these prodrugs through clinical development for the treatment of a variety of diseases and conditions. The scientific discoveries that form the basis for our efforts to discover and develop prodrugs are relatively new. The scientific evidence to support the feasibility of developing product candidates based on these discoveries is both preliminary and limited. Although our research and development efforts to date have resulted in a pipeline of NME prodrug product candidates, we may not be able to develop prodrugs that are bioequivalent, safe and effective

and that have commercially significant improvements over already approved drugs. Even if we are successful in continuing to build our pipeline, the potential product candidates that we identify may not be suitable for clinical development, including as a result of being shown to have harmful side effects, a lack of efficacy, or other characteristics that indicate that they are unlikely to be prodrugs that will receive marketing approval and achieve market acceptance. If we do not successfully develop and commercialize product candidates based upon our LAT platform technology, we will not be able to obtain product revenue in future periods, which likely would result in significant harm to our financial position and adversely affect our stock price.

We are very early in our development efforts and have only one product candidate, KP201/APAP, that has commenced clinical trials. All of our other product candidates are still in preclinical development. If we are unable to commercialize our product candidates, including KP201/APAP, or experience significant delays in doing so, our business will be harmed.

We are very early in our development efforts and have only one product candidate, KP201/APAP, that has commenced clinical trials. All of our other product candidates are still in preclinical development. We have not completed the development of any product candidates, we generate no revenue from the sale of any prodrugs and we may never be able to develop a marketable NME prodrug product. We have invested substantially all of our efforts and financial resources in the development of our LAT platform technology, the identification of potential product candidates and the development of our product candidates. Our ability to generate revenue from our product candidates, which we do not expect will occur for a number of years, if ever, will depend heavily on their successful development and eventual commercialization. The success of our product candidates will depend on several factors, including:

- successful completion of preclinical studies and requisite clinical trials;
- successful completion and achievement of endpoints in our clinical trials;
- demonstration that the risks involved with our product candidates are outweighed by the benefits;
- successful development of our manufacturing processes for our product candidates, including entering into and maintaining arrangements with third-party manufacturers;
- successful completion of an FDA preapproval inspection of the facilities used to manufacture our product candidates, as well as select clinical trial sites;
- receipt of timely marketing approvals from applicable regulatory authorities, including the determination by the DEA of the controlled substance schedule for a product candidate, taking into account the recommendation of the FDA;
- obtaining abuse-deterrent and other desirable marketing claims, such as GI motility or OIC-related language, in the labels for these product candidates, including KP201/APAP;
- obtaining and maintaining patent, trademark and trade secret protection and regulatory exclusivity for our product candidates and otherwise protecting our rights in our intellectual property portfolio;
- maintaining compliance with regulatory requirements, including current good manufacturing practices, or cGMPs;
- launching commercial sales of product candidates, if and when approved, whether alone or in collaboration with others;
- acceptance of our NME prodrug product candidates, if approved, by patients, the medical community and third-party payors;
- competing effectively with other therapies;
- obtaining and maintaining healthcare coverage and adequate reimbursement; and
- maintaining a continued acceptable safety and efficacy profile of the NME prodrug products following approval.

Whether regulatory approval will be granted is unpredictable and depends upon numerous factors, including the substantial discretion of the regulatory authorities. If, following submission, our NDA for a product candidate is not accepted for substantive review or approval, the FDA or other comparable foreign regulatory authorities may require that we conduct additional studies or clinical trials, provide additional data, take additional manufacturing steps or require other conditions before they will reconsider our application. If the FDA or other comparable foreign regulatory authorities require additional studies, clinical trials or data, we would incur increased costs and delays in the marketing approval process, which may require us to expend more resources than we have available. In addition, the FDA or other comparable foreign regulatory authorities may not consider sufficient any additional required studies, clinical trials, data or information that we perform and complete or generate, or we may decide to abandon the program.

It is possible that none of our existing product candidates or any of our future product candidates will ever obtain regulatory approval, even if we expend substantial time and resources seeking such approval.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize our product candidates, which would harm our business.

Our ability to market and promote our products in the United States by describing their abuse-deterrent features will be determined by the FDA-approved labeling for them.

The commercial success of KP201/APAP and most of our other product candidates will depend upon our ability to obtain FDA-approved labeling describing their abuse-deterrent features. Our failure to achieve FDA approval of product labeling containing such information will prevent our advertising and promotion of the abuse-deterrent features of our product candidates in order to differentiate them from other similar products. This would make our products less competitive in the market.

FDA approval is required in order to make claims that a product has an abuse-deterrent effect. In January 2013, the FDA published draft guidance with regard to the evaluation and labeling of abuse-deterrent opioids. For the first time, the FDA provided direction as to the studies and data required for obtaining abuse-deterrent claims in a product label. The draft guidance describes four tiers of label claims for abuse-deterrent products:

- Tier 1—the product is formulated with physical or chemical barriers to abuse.
- Tier 2—the product is expected to reduce or block effects of the opioid when the product is manipulated.
- Tier 3—the product is expected to result in a meaningful reduction in abuse.
- Tier 4—the product has demonstrated reduced abuse in the community.

If a product is approved by the FDA to include such claims in its label, the applicant may use information about the abuse-deterrent features of the product in its marketing efforts to physicians.

Although we intend to conduct trials to support approval by the FDA of Tier 1, 2 and 3 labeling claims for KP201/APAP, there can be no assurance that KP201/APAP or any of our other product candidates will receive FDA-approved labeling that describes the abuse-deterrent features of such products. The FDA may find that our trials do not support abuse-deterrent labeling or that our product candidates do not provide substantial abuse deterrence because, for example, their deterrence mechanisms do not address the way they are most likely to be abused. As with all claims, we will be required to provide adequate substantiation. For example, we will need to demonstrate that KP201/APAP has abuse-deterrent properties sufficient to achieve Tier 1, 2 and 3 abuse-deterrent labeling. Further, the FDA is not required to follow its draft guidance and could change this guidance,

which could require us to conduct additional trials. If the FDA does not approve abuse-deterrent labeling, we will not be able to promote such products based on their abuse-deterrent features and may not be able to differentiate such products from other similar products.

Even if we do receive FDA approval for abuse-deterrent claims, the claims may not be broad enough to demonstrate a substantial benefit to health care providers and patients. For instance, the claims may not encompass the more common forms of abuse for products like our product candidates. Moreover, continued investigation in Phase 4 studies following product approval, if required, may not support the continued use of abuse-deterrent claims.

We have not completed any clinical trials in humans evaluating our product candidates' ability to reduce the incidence of OIC and we may not be able to include language in the label related to preserving GI motility or reducing the incidence of OIC.

We have not completed any clinical trials in humans evaluating our product candidates' ability to reduce the incidence of OIC. Presently, we are conducting a single clinical trial to evaluate the ability of KP201/APAP to preserve GI motility as compared to hydrocodone/APAP combination products as a surrogate for its ability to reduce the incidence of OIC, but we do not expect data from this trial until the first quarter of 2015. If our product candidates do not exhibit the ability to preserve GI motility or otherwise reduce the incidence of OIC in clinical trials, we will not be able to obtain a label description of preserved GI motility or reduced incidence of OIC.

Even if we receive positive data from this trial, the FDA may find that our data is not sufficient to support language in our label that KP201/APAP has advantages over other products in terms of GI motility or OIC incidence. The FDA has stated that language comparing the incidence of OIC in KP201/APAP with that in other products will need to be supported by two adequate and well-controlled clinical trials that, in addition to OIC, also evaluate product efficacy. The one GI motility trial we are conducting will not be sufficient to support a comparative claim. If we are unable to include language on the label related to preserving GI motility or reducing the incidence of OIC, it would harm our ability to convey the benefits of our product candidates to patients, physicians and society and could compromise the commercial success of our product candidates.

If the FDA does not conclude that our product candidates are sufficiently bioequivalent, or have comparable bioavailability, to approved drugs, or if the FDA does not allow us to pursue the 505(b)(2) NDA pathway as anticipated, the approval pathway for our product candidates will likely take significantly longer, cost significantly more and entail significantly greater complications and risks than anticipated, and the FDA may not ultimately approve our product candidates.

A key element of our strategy is to seek FDA approval for most of our product candidates, including KP201/APAP, through the 505(b)(2) NDA pathway. 505(b)(2) permits the filing of an NDA where at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference. Such reliance is typically predicated on a showing of bioequivalence or comparable bioavailability to an approved drug.

If the FDA does not allow us to pursue the 505(b)(2) NDA pathway as anticipated, or if we cannot demonstrate bioequivalence or comparable bioavailability of our product candidates to approved products, we may need to conduct additional clinical trials, provide additional data and information, and meet additional standards for regulatory approval. Moreover, even if the FDA does allow us to pursue the 505(b)(2) NDA pathway, depending on the product candidate, we may still need to conduct additional clinical trials, including clinical trials to assess product safety or efficacy. If this were to occur, the time and financial resources required to obtain FDA approval for our product candidates, and complications and risks associated with our product candidates, would likely substantially increase.

To rely on the FDA's previous findings of safety and effectiveness for an approved product in a 505(b)(2) NDA, the approved product must be an NDA product. For KP201/APAP, because there are no approved NDAs for hydrocodone/APAP combination products, we are required to establish safety and efficacy of APAP and safety and efficacy of hydrocodone separately through other methods. We plan to reference published medical and scientific literature in our 505(b)(2) NDA to establish the safety and effectiveness of hydrocodone. If this literature is insufficient, we may need to conduct additional clinical trials and provide additional data and information regarding the safety and effectiveness of hydrocodone.

Moreover, our inability to pursue the 505(b)(2) NDA pathway could result in new competitive products reaching the market more quickly than our product candidates, which could hurt our competitive position and our business prospects. Even if we are allowed to pursue the 505(b)(2) NDA pathway, we cannot assure you that our product candidates will receive the requisite approvals for commercialization on a timely basis, if at all. Other companies may achieve product approval of similar products before we do, which would delay our ability to obtain product approval, expose us to greater competition, and would require that we seek approval via alternative pathways, such as an abbreviated new drug application, or ANDA, which is used for the development of generic drug products.

In addition, notwithstanding the approval of a number of products by the FDA under 505(b)(2) over the last few years, pharmaceutical companies and others have objected to the FDA's interpretation of 505(b)(2). If the FDA's interpretation of 505(b)(2) is successfully challenged, the FDA may change its policies and practices with respect to 505(b)(2) regulatory approvals, which could delay or even prevent the FDA from approving any NDA that we submit under 505(b)(2).

Even if our product candidates are approved under 505(b)(2), the approval may be subject to limitations on the indicated uses for which the products may be marketed, including more limited subject populations than we request, may require that contraindications, warnings or precautions be included in the product labeling, including a black box warning, may be subject to other conditions of approval, or may contain requirements for costly post-marketing clinical trials, testing and surveillance to monitor the safety or efficacy of the products, or other post-market requirements, such as a REMS. The FDA also may not approve a product candidate with a label that includes the labeling claims necessary or desirable for the successful commercialization of that product candidate. Based upon currently approved products, we anticipate that we may be required to conduct Phase 4 studies and to implement a REMS and will have a black box warning for at least some of our product candidates.

Clinical drug development involves a lengthy and expensive process, with an uncertain outcome. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.

The risk of failure for our product candidates is high. It is impossible to predict when or if any of our product candidates will prove effective or safe in humans and will receive regulatory approval. Before obtaining marketing approval from regulatory authorities for the sale of any product candidate, we must complete preclinical development and then conduct clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more clinical trials can occur at any stage of testing. The outcome of preclinical studies and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. Interpretation of results from early, usually smaller, studies that suggest positive trends in some subjects, requires caution. Results from later stages of clinical trials enrolling more

subjects may fail to show the desired safety and efficacy results or otherwise fail to be consistent with the results of earlier trials of the same product candidates. Later clinical trial results may not replicate earlier clinical trials for a variety of reasons, including differences in trial design, different trial endpoints, or lack of trial endpoints in exploratory studies, subject population, number of subjects, subject selection criteria, trial duration, drug dosage and formulation and lack of statistical power in the earlier studies. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products.

We may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our product candidates, including:

- regulators or institutional review boards may not authorize us or our investigators to commence a clinical trial, conduct a clinical trial at a prospective trial site or amend clinical trial protocols as needed;
- we may experience delays in reaching, or fail to reach, agreement on acceptable clinical trial contracts or clinical trial protocols with prospective trial sites and contract research organizations, or CROs;
- clinical trials of our product candidates may produce negative or inconclusive results, including failure to demonstrate statistical significance, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon prodrug development programs;
- the number of subjects required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials at a higher rate than we anticipate;
- our third-party contractors may fail to comply with regulatory requirements or trial protocols, or meet their contractual obligations to us in a timely manner, or at all;
- regulators or institutional review boards may require that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;
- the cost of clinical trials of our product candidates may be greater than we anticipate, including if we are not able to pursue the 505(b)(2) NDA pathway for approval of our product candidates;
- we will need to pay substantial application user fees, which we may not be able to afford;
- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate;
- we may abandon our development program or programs based on the changing regulatory or commercial environment;
- regulatory authorities may not agree with our trial design or implementation; and
- our product candidates may have undesirable side effects or other unexpected characteristics, causing us or our investigators, regulators or institutional review boards to suspend or terminate the trials.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- be delayed in obtaining marketing approval for our product candidates;
- not obtain marketing approval at all;

- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval but without the claims necessary for us to successfully commercialize our product candidates;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings;
- be subject to additional post-marketing testing, surveillance, or other requirements, such as risk evaluation and mitigation strategies, or REMS; or
- have the product removed from the market after obtaining marketing approval.

Our prodrug development costs may also increase if we experience delays in testing or obtaining marketing approvals. We do not know whether any of our preclinical studies or clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Significant preclinical study or clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do and impair our ability to successfully commercialize our product candidates.

Changes in methods of product candidate manufacturing or formulation may result in additional costs or delay.

As product candidates are developed through preclinical studies to late-stage clinical trials towards approval and commercialization, various aspects of the development program, such as manufacturing methods and formulation, may be altered along the way in an effort to optimize processes and results. Such changes may not achieve these intended objectives. Any of these changes could cause our product candidates to perform differently and affect the results of planned clinical trials or other future clinical trials conducted with the altered materials. Such changes may also require additional testing, FDA notification or FDA approval. This could delay completion of clinical trials, require the conduct of bridging clinical trials or the repetition of one or more clinical trials, increase clinical trial costs, delay approval of our product candidates and jeopardize our ability to commence product sales and generate revenue.

Our decision to seek approval of KP201/APAP and other product candidates under 505(b)(2) may increase the risk that patent infringement suits are filed against us, which would delay the FDA's approval of such product candidates.

In connection with any NDA that we file under 505(b)(2), if there are patents that claim the approved drug contained in our product candidates and referenced in our 505(b)(2) NDA, we must certify to the FDA and notify the patent holder that any patents listed for the approved drug in the FDA's Orange Book publication are invalid, unenforceable or will not be infringed by the manufacture, use or sale of our prodrug. If a patent infringement lawsuit is filed against us within 45 days of its receipt of notice of our certification, the FDA is automatically prevented from approving our 505(b)(2) NDA until the earliest of 30 months, expiration of the patent, settlement of the lawsuit or a court decision in the infringement case that is favorable to us, or such shorter or longer period as may be ordered by a court. Such actions are routinely filed by patent owners. Accordingly, we may invest significant time and expense in the development of our product candidates only to be subject to significant delay and patent litigation before our product candidates may be commercialized. We may not be successful in defending any patent infringement claim. Even if we are found not to infringe, or a plaintiff's patent claims are found invalid or unenforceable, defending any such infringement claim would be expensive and time-consuming, and would delay launch of KP201/APAP or our other product candidates and distract management from their normal responsibilities.

We anticipate that most of our product candidates, if approved by the FDA, may be subject to mandatory REMS programs, which could increase the cost, burden and liability associated with the commercialization of these product candidates.

The FDA has indicated that some opioid drugs formulated with the active ingredients hydrocodone, fentanyl, hydromorphone, methadone, morphine, oxycodone, oxymorphone and others will be required to have a REMS to ensure that the benefits of the drugs continue to outweigh the risks. The FDA has already approved a REMS for ER and long-acting opioids as part of a federal initiative to address inappropriate prescribing and prescription drug abuse and misuse. The REMS introduces new safety measures designed to reduce risks and improve the safe use of ER and long-acting opioids, while ensuring access to needed medications for patients in pain. The ER and long-acting opioid REMS affects more than 20 companies that manufacture these opioid analgesics. Under the new REMS, companies are required to make education programs available to prescribers. It is expected that companies will meet this obligation by taking specific steps to ensure that health care providers are aware of the availability of the training and by providing educational grants to continuing education providers, who will develop and deliver the training. The REMS also requires companies to make available FDA-approved patient education materials on the safe use of these drugs. The companies must perform periodic assessments of the implementation of the REMS and the success of the program in meeting its goals. The FDA will review these assessments and may require additional elements to achieve the goals of the program. Independent audits must also be conducted of the educational efforts.

We anticipate that most of our product candidates, including KP201/APAP, if approved by the FDA, may be subject to a REMS requirement. There may be increased cost, administrative burden and potential liability associated with the marketing and sale of these types of product candidates subject to a REMS requirement, which could increase the costs to us and reduce the commercial benefits to us from the sale of these product candidates.

Our product candidates contain controlled substances, the manufacture, use, sale, importation, exportation, prescribing and distribution of which are subject to regulation by the DEA.

Before we can commercialize our product candidates, the DEA will need to determine the controlled substance schedule, taking into account the recommendation of the FDA. This may be a lengthy process that could delay our marketing of a product candidate and could potentially diminish any regulatory exclusivity periods for which we may be eligible. Most of our product candidates, including KP201/APAP, KP511/ER, KP415 and KP606/ER, if approved, will be regulated as “controlled substances” as defined in the Controlled Substances Act of 1970, or CSA, and the implementing regulations of the DEA, which establish registration, security, recordkeeping, reporting, storage, distribution, importation, exportation, inventory, quota and other requirements administered by the DEA. These requirements are applicable to us, to our contract manufacturers and to distributors, prescribers and dispensers of our product candidates. The DEA regulates the handling of controlled substances through a closed chain of distribution. This control extends to the equipment and raw materials used in their manufacture and packaging, in order to prevent loss and diversion into illicit channels of commerce. A number of states and foreign countries also independently regulate these drugs as controlled substances.

The DEA regulates controlled substances as Schedule I, II, III, IV or V substances. Schedule I substances by definition have no established medicinal use, and may not be marketed or sold in the United States. A pharmaceutical product may be listed as Schedule II, III, IV or V, with Schedule II substances considered to present the highest risk of abuse and Schedule V substances the lowest relative risk of abuse among such substances. Schedule II drugs are those that meet the following characteristics:

- the drug has a high potential for abuse;
- the drug has a currently accepted medical use in treatment in the United States or a currently accepted medical use with severe restrictions; and

- abuse of the drug may lead to severe psychological or physical dependence.

We expect that most of our product candidates will be listed by the DEA as Schedule II controlled substances under the CSA. Consequently, the manufacturing, shipping, storing, selling and using of the products will be subject to a high degree of regulation. Schedule II drugs are subject to the strictest requirements for registration, security, recordkeeping and reporting. Also, distribution, prescribing and dispensing of these drugs are highly regulated.

Annual registration is required for any facility that manufactures, distributes, dispenses, imports or exports any controlled substance. The registration is specific to the particular location, activity and controlled substance schedule.

In addition, a DEA quota system controls and limits the availability and production of controlled substances in Schedule I or II. Because most of our product candidates are expected to be regulated as Schedule II controlled substances, they will be subject to the DEA's production and procurement quota scheme. The DEA establishes annually an aggregate quota for how much of a controlled substance may be produced in total in the United States based on the DEA's estimate of the quantity needed to meet legitimate scientific and medicinal needs. Manufacturers of Schedule I and II controlled substances are required to apply for quotas on an annual basis. If we or our contract manufacturers or suppliers do not obtain a sufficient quota from DEA, we may not be able to obtain sufficient quantities of these controlled substances in order to complete our clinical trials or meet commercial demand, if our product candidates are approved for marketing.

Because of their restrictive nature, these laws and regulations could limit commercialization of our product candidates containing controlled substances. Failure to comply with these laws and regulations could also result in withdrawal of our DEA registrations, disruption in manufacturing and distribution activities, consent decrees, criminal and civil penalties and state actions, among other consequences.

If we experience delays or difficulties in the enrollment of subjects in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

We may not be able to initiate or continue clinical trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible subjects to participate in these trials as required by the FDA or similar regulatory authorities outside the United States. We cannot predict how successful we will be at enrolling subjects in future clinical trials. If we are not successful at enrolling subjects in one clinical trial, it may effect when we are able to initiate our next clinical trial, which could result in significant delays in our efforts to pursue regulatory approval of and commercialize our product candidates. In addition, some of our competitors have ongoing clinical trials to treat the same indications as our product candidates, and subjects who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors. Subject enrollment is affected by other factors including:

- the size and nature of the subject population specified in the trial protocol;
- the eligibility criteria for the study in question;
- the perceived risks and benefits of the product candidate under study;
- the fact that the product candidate is a controlled substance;
- severe or unexpected drug-related adverse events experienced by subjects in a clinical trial;
- the availability of drugs approved to treat the diseases or conditions under study;
- the efforts to facilitate timely enrollment in clinical trials;
- the patient referral practices of physicians;
- the severity of the disease or condition under investigation;
- the ability to obtain and maintain subject informed consent;

- the ability to retain subjects in the clinical trial and their return for follow-up;
- the clinical trial design, including required tests, procedures and follow-up;
- the ability to monitor subjects adequately during and after treatment;
- delays in adding new investigators and clinical sites;
- withdrawal of clinical trial sites from clinical trials; and
- the proximity and availability of clinical trial sites for prospective subjects.

Our inability to enroll a sufficient number of subjects for clinical trials would result in significant delays and could require us to abandon one or more clinical trials altogether. Enrollment delays in these clinical trials may result in increased development costs for our product candidates, which could cause our value to decline and limit our ability to obtain additional financing.

Our clinical trials may fail to demonstrate the safety and efficacy of our product candidates, or serious adverse or unacceptable side effects may be identified during the development of our product candidates, which could prevent or delay regulatory approval and commercialization, increase our costs or necessitate the abandonment or limitation of the development of some of our product candidates.

Before obtaining regulatory approvals for the commercial sale of our product candidates, we must demonstrate through lengthy, complex and expensive preclinical studies and clinical trials that our product candidates are both safe and effective for use in each target indication, and failures can occur at any stage of testing. Clinical trials often fail to demonstrate safety and efficacy of the product candidate studied for the target indication.

If our product candidates are associated with side effects in clinical trials or have characteristics that are unexpected, we may need to abandon their development or limit development to more narrow uses or subpopulations in which the side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. The FDA or an institutional review board may also require that we suspend, discontinue, or limit our clinical trials based on safety information. Such findings could further result in regulatory authorities failing to provide marketing authorization for our product candidates. Many product candidates that initially showed promise in early stage testing have later been found to cause side effects that prevented further development of the product candidate.

Clinical trials of our most advanced product candidate KP201/APAP have thus far found adverse events, such as dizziness and nausea and other adverse events consistent with other opioid products.

We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and management resources, we focus on research programs and product candidates that we identify for specific indications. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial drugs or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

Social issues around the abuse of opioids and stimulants, including law enforcement concerns over diversion and regulatory efforts to combat abuse, could decrease the potential market for our product candidates.

Media stories regarding prescription drug abuse and the diversion of opioids, stimulants and other controlled substances are commonplace. Law enforcement and regulatory agencies may apply policies that seek to limit the availability of opioids and stimulants. Such efforts may inhibit our ability to commercialize our product candidates. Aggressive enforcement and unfavorable publicity regarding, for example, the use or misuse of hydrocodone or other opioid drugs, the limitations of abuse-deterrent formulations, public inquiries and investigations into prescription drug abuse, litigation or regulatory activity, sales, marketing, distribution or storage of our products could harm our reputation. Such negative publicity could reduce the potential size of the market for our product candidates and decrease the revenue we are able to generate from their sale, if approved. Similarly, to the extent prescription drug abuse becomes a less prevalent or less urgent public health issue, regulators and third-party payers may not be willing to pay a premium for abuse-deterrent formulations of opioids or stimulants.

Additionally, efforts by the FDA and other regulatory bodies to combat abuse of opioids and stimulants may negatively impact the market for our product candidates. For example, in April 2014, the FDA approved class-wide labeling changes to the indications for use of all approved ER and long-acting opioids so that ER and long-acting opioids will be indicated only for the management of pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate. It is possible that such changes could reduce the number of prescriptions for opioids written by physicians and negatively impact the potential market for our product candidates. The FDA also held a public meeting in October 2014 on the development and regulation of abuse-deterrent formulations of opioid medications. It is possible that FDA will announce new regulatory initiatives at any time that may increase the regulatory burden or decrease the commercial opportunity for our product candidates.

We are party to non-competition restrictions that may prevent us from investigating, developing or commercializing specified amphetamine-based product candidates.

On March 21, 2012, we entered into an asset purchase agreement with Shire LLC, or Shire, pursuant to which we sold assets and intellectual property to Shire. As partial consideration for this sale, we and our chief executive officer, Travis Mickle, agreed not to compete with Shire in the development, commercialization, production or distribution of amphetamine amino acid conjugate products until March 21, 2017. As a result, we have not engaged in any development efforts for such product candidates and will not engage in any such development efforts until the expiration of this non-competition provision, if at all. Prior to such time, our competitors may make substantial development progress regarding similar product candidates and even obtain FDA or other regulatory approval for similar product candidates. This could result in our competitors establishing a strong market position before we are able to enter the market or begin our development process, which may prevent us from entering such market altogether.

Risks Related to Our Dependence on Third Parties

We expect to rely on third parties to conduct our clinical trials for our product candidates, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials.

We expect to engage CROs for our planned clinical trials of our product candidates. We expect to rely on CROs, as well as other third parties, such as clinical data management organizations, medical institutions and clinical investigators, to conduct those clinical trials. Agreements with such third parties might terminate for a variety of reasons, including a failure to perform by the third parties. If we need to enter into alternative arrangements, our drug development activities would be delayed.

Our reliance on these third parties for research and development activities will reduce our control over these activities but will not relieve us of our responsibilities. For example, we will remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. Moreover, the FDA requires us to comply with regulatory standards, commonly referred to as good clinical practices, or GCPs, for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. We also are required to register specified ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within specified timeframes. In addition, we must conduct our clinical trials with product produced under cGMP requirements. Failure to comply with these regulations may require us to repeat preclinical studies and clinical trials, which would delay the regulatory approval process. Failure to comply with the applicable requirements related to clinical investigations by us, our CROs or clinical trial sites can also result in clinical holds and termination of clinical trials, debarment, FDA refusal to approve applications based on the clinical data, warning letters, withdrawal of marketing approval if the product has already been approved, fines and other monetary penalties, delays, adverse publicity and civil and criminal sanctions, among other consequences.

Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our clinical trials in accordance with regulatory requirements or our stated protocols, we will not be able to obtain, or may be delayed in obtaining, marketing approvals for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates.

In addition, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and may receive cash or equity compensation in connection with such services. If these relationships and any related compensation result in perceived or actual conflicts of interest, or the FDA concludes that the financial relationship may have affected the interpretation of the study, the integrity of the data generated at the applicable clinical trial site may be questioned and the utility of the clinical trial itself may be jeopardized, which could result in the delay or rejection of any NDA we submit by the FDA. Any such delay or rejection could prevent us from commercializing our product candidates. Further, our arrangements with principal investigators are also subject to scrutiny under other health care regulatory laws, such as the federal Anti-Kickback Statute.

We also expect to rely on other third parties to store and distribute product supplies for our clinical trials. Any performance failure on the part of our distributors could delay clinical development or marketing approval of our product candidates or commercialization of our products, producing additional losses and depriving us of potential product revenue.

If the third parties with whom we contract do not successfully carry out their contractual duties or obligations or meet expected deadlines or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated, we may need to conduct additional trials, and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenue could be delayed. To the extent we are unable to successfully identify and manage the performance of third-party service providers in the future, our business may be adversely affected.

We contract with a third party for the manufacture of KP201/APAP used in our clinical trials and with a sole source supplier for the manufacture of bulk quantities of KP201 used in KP201/APAP and we expect to continue to do so. This reliance on third-party manufacturers increases the risk that we will not have sufficient quantities of KP201 or KP201/APAP or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.

We do not have any manufacturing facilities or personnel. We procure KP201 bulk drug substance from a sole source, third-party manufacturer and the KP201/APAP used in our clinical trials from another third party. We anticipate we will continue to do so for the foreseeable future. We also expect to continue to rely on third parties as we proceed with preclinical and clinical testing of our other product candidates, as well as for commercial manufacture if any of our product candidates receive marketing approval. This reliance on third parties increases the risk that we will not have sufficient quantities of KP201, other bulk drug substances or our product candidates, or such quantities at an acceptable cost or quality, which could delay, prevent or impair our ability to timely conduct our clinical trials or our other development or commercialization efforts.

We may be unable to establish any future agreements with third-party manufacturers or to do so on acceptable terms. Even if we are able to maintain our existing third-party relationships or establish any such agreements with other third-party manufacturers, reliance on third-party manufacturers entails additional risks, including:

- reliance on the third party for FDA and DEA regulatory compliance and quality assurance;
- the possible misappropriation of our proprietary information, including our trade secrets and know-how;
- disruption and costs associated with changing suppliers, including additional regulatory filings;
- the possible breach, termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us;
- a delay or inability to procure or expand sufficient manufacturing capacity;
- manufacturing and product quality issues related to scale-up of manufacturing;
- costs and validation of new equipment and facilities required for scale-up;
- the inability to negotiate manufacturing agreements with third parties under commercially reasonable terms;
- termination or nonrenewal of manufacturing agreements with third parties in a manner or at a time that is costly or damaging to us;
- the reliance on a limited number of sources, and in some cases, single sources for product components, such that if we are unable to secure a sufficient supply of these product components, we will be unable to manufacture and sell our product candidates in a timely fashion, in sufficient quantities or under acceptable terms; and
- carrier disruptions or increased costs that are beyond our control.

Any of these events could lead to clinical trial delays, failure to obtain regulatory approval or impact our ability to successfully commercialize our products. Some of these events could be the basis for FDA action, including injunction, recall, seizure or total or partial suspension of production.

The facilities used by our contract manufacturers to manufacture our product candidates must be approved by the FDA pursuant to inspections that will be conducted after we submit our marketing application to the FDA, and these facilities could fail to obtain FDA approval.

While we are ultimately responsible for the manufacture of our product candidates, we do not, other than through our contractual arrangements, control the manufacturing process of, and are completely dependent on, our contract manufacturing partners for compliance with cGMP requirements and for manufacture of both active drug substances and finished drug products. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications

and the strict regulatory requirements of the FDA or other regulatory authorities, we will not be able to secure and maintain regulatory approval for their manufacturing facilities. In addition, other than through our contractual agreements, we have no control over the ability of our contract manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or a comparable foreign regulatory authority does not approve these facilities for the manufacture of our product candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain marketing approval for or market our product candidates, if approved.

Further, if our product candidates are approved, our suppliers will be subject to regulatory requirements, covering manufacturing, testing, quality control and record keeping relating to our product candidates, and subject to ongoing inspections by the regulatory agencies. Failure by any of our suppliers to comply with applicable regulations may result in long delays and interruptions to our manufacturing capacity while we seek to secure another supplier that meets all regulatory requirements, as well as market disruption related to any necessary recalls or other corrective actions.

Third-party manufacturers may not be able to comply with current cGMP regulations or similar regulatory requirements outside the United States. Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including warning letters, clinical holds or termination of clinical trials, fines, injunctions, restitution, disgorgement, civil penalties, delays, suspension or withdrawal of approvals or other permits, FDA refusal to approve pending applications, product detentions, FDA or DEA consent decrees placing significant restrictions on or suspending manufacturing and distribution operations, debarment, refusal to allow import or export, product detentions, adverse publicity, dear-health-care-provider letters or other warnings, license revocation, seizures or recalls of product candidates, operating restrictions, refusal of government contracts or future orders under existing contracts and civil and criminal liability, including False Claims Act liability, exclusion from participation in federal health care programs, and corporate integrity agreements among other consequences, any of which could significantly and adversely affect supplies of our NME prodrugs.

Our product candidates and any prodrugs that we may develop may compete with other product candidates and drugs for access to manufacturing facilities, and we may be unable to obtain access to these facilities on favorable terms.

There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us. Any performance failure on the part of our existing or future manufacturers could delay clinical development or marketing approval. We do not currently have arrangements in place for redundant supply or a second source for KP201 bulk drug substance. If our current contract manufacturer for KP201 bulk drug substance cannot perform as agreed, we may be required to replace such manufacturer and we may incur added costs and delays in identifying and qualifying any such replacement.

We may seek collaborations with third parties for the development or commercialization of our product candidates. If those collaborations are not successful, we may not be able to capitalize on the market potential of these product candidates.

We may seek third-party collaborators for the development and commercialization of our product candidates, including for the commercialization of any of our product candidates that are approved for marketing outside the United States. Our likely collaborators include large and mid-size pharmaceutical companies, regional, national and international pharmaceutical companies and biotechnology companies. If we do enter into any collaboration arrangements with any third parties, we will likely have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our product candidates. Our ability to generate revenue from these arrangements will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements.

Collaborations involving our product candidates would pose the following risks to us:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not perform their obligations as expected;
- collaborators may not pursue development and commercialization of any product candidates that achieve regulatory approval or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborators' strategic focus or available funding, or external factors, such as an acquisition, that divert resources or create competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our product candidates if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- product candidates discovered in collaboration with us may be viewed by our collaborators as competitive with their own product candidates or products, which may cause collaborators to cease to devote resources to the commercialization of our product candidates;
- a collaborator with marketing and distribution rights to one or more of our product candidates that achieve regulatory approval may not commit sufficient resources to the marketing and distribution of such products;
- disagreements with collaborators, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might cause delays or termination of the research, development or commercialization of product candidates, might lead to additional responsibilities for us with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;
- collaborators may not properly maintain or defend our or their intellectual property rights or may use our or their proprietary information in such a way as to invite litigation that could jeopardize or invalidate such intellectual property or proprietary information or expose us to potential litigation;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability; and
- collaborations may be terminated for the convenience of the collaborator and, if terminated, we could be required to raise additional capital to pursue further development or commercialization of the applicable product candidates.

Collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all. If a present or future collaborator of ours were to be involved in a business combination, the continued pursuit and emphasis on our drug development or commercialization program could be delayed, diminished or terminated.

If we are not able to establish collaborations, we may have to alter our development and commercialization plans.

Our NME prodrug development programs and the potential commercialization of our product candidates will require substantial additional capital. For some of our product candidates, we may need to collaborate with pharmaceutical and biotechnology companies for the development and potential commercialization of those product candidates.

We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge, and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our product candidate. Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators.

We may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of product candidates, reduce or delay one or more of our development programs, delay potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate product revenue.

Provisions in our agreements with Shire and another third party may inhibit our ability to enter into future collaborations with third parties.

Under our asset purchase agreement with Shire, we granted Shire a right of first refusal to acquire, license or commercialize KP415. The right of first refusal may be exercised by Shire for a period of 30 business days following Shire's receipt of written notice from us of the existence of a bona fide offer from a third party to acquire, license or commercialize KP415.

We are also party to a termination agreement with a third party, which may limit the value of any sale, license or commercialization of KP415. Under this termination agreement, this third party has the right to receive an amount equal to a low double digit percentage of any value generated by KP415, and any product candidates arising therefrom, including royalty payments on any license of KP415, the sale of KP415 to a third party or the commercialization of KP415.

Provisions in the Deerfield facility may inhibit our ability to enter into specified transactions, including any joint venture, partnership or any other profit sharing arrangement.

Pursuant to the Deerfield facility, we may not enter into specified transactions, including any joint venture, partnership or any other profit sharing arrangement, without the prior approval of Deerfield. Additionally, if we were to enter into such a transaction, Deerfield would have the ability to demand that prior to consummation of such transaction we repay all outstanding principal and accrued interest of any notes issued under the Deerfield facility. Deerfield's interests may not always coincide with our corporate interests or the interests of our other stockholders, and Deerfield may act in a manner with which you may not agree or that may not be in the best interests of our other stockholders. If Deerfield does not approve our entry into specified transactions, it could significantly delay or inhibit the commercialization of our product candidates.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain trade secret protection or patent protection for our technology and product candidates or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and drugs similar or identical to ours, and our ability to successfully commercialize our technology and product candidates may be impaired.

Our success depends in large part on our ability to obtain and maintain trade secret protection of our LAT platform technology as well as patent protection in the United States and other countries with respect to our product candidates. We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our product technology and product candidates.

The patent prosecution process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. We may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the rights to patents, licensed to third parties by us. Further, we may also not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the rights to patents, licensed from third parties to us. Therefore, any such patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. If such licensors or licensees fail to maintain such patents, or lose rights to those patents, the rights we have in- or out-licensed may be reduced or eliminated.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. In addition, the laws of foreign countries may not protect our rights to the same extent as the laws of the United States or visa-versa. For example, European patent law restricts the patentability of methods of treatment of the human body more than United States law. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and utility, or equivalent, patent applications in the United States and other jurisdictions are typically not published until 18 months after the filing date of such patent applications, or in some cases not at all. Therefore, we cannot know with certainty whether we were the first to make the inventions claimed in our owned or licensed patents or pending patent applications, or that we were the first to file for patent protection of such inventions. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our pending and future patent applications may not result in patents being issued that protect our product candidates, in whole or in part, or which effectively prevent others from commercializing competitive technologies and drugs. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection.

Our patent position is subject to numerous additional risks, including the following:

- we may fail to seek patent protection for inventions that are important to our success;
- our pending patent applications may not result in issued patents;
- we cannot be certain that we are the first to invent the inventions covered by pending patent applications or that we are the first to file such applications and, if we are not, we may be subject to priority disputes or lose rights;
- we may be required to disclaim part or all of the term of certain patents or all of the term of certain patent applications;
- we may file patent applications but have claims restricted or we may not be able to supply sufficient data to support our claims and, as a result, may not obtain the original claims desired or we may receive restricted claims; alternatively, it is possible that we may not receive any patent protection from an application;

- even if our owned and licensed patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, and may not be of sufficient scope or strength to provide us with any commercial advantage;
- our competitors may be able to design around our owned or licensed patents by developing similar or alternative technologies or drugs without infringing on our intellectual property rights;
- we could inadvertently abandon a patent or patent application, resulting in the loss of protection of intellectual property rights in a particular country, and we, our collaborators or our patent counsel may take action resulting in a patent or patent application becoming abandoned which may not be able to be reinstated or if reinstated, may suffer patent term adjustments;
- the claims of our issued patents or patent applications when issued may not cover our product candidates;
- no assurance can be given that our patents would be declared by a court to be valid or enforceable or that a competitor's technology or product would be found by a court to infringe our patents and our patents or patent applications may be challenged by third parties in patent litigation or in proceedings before the United States Patent and Trademark Office, or USPTO, or its foreign counterparts, and may ultimately be declared invalid or unenforceable or narrowed in scope;
- there may be prior art of which we are not aware that may affect the validity or enforceability of a patent claim and there may be prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim, which may, nonetheless, ultimately be found to affect the validity or enforceability of a claim;
- third parties may develop products that have the same or similar effect as our products without infringing our patents;
- third parties may intentionally circumvent our patents by means of alternate designs or processes or file applications or be granted patents that would block or hurt our efforts;
- there may be dominating patents relevant to our product candidates of which we are not aware;
- obtaining regulatory approval for pharmaceutical products is a lengthy and complex process, and as a result, any patents covering our product candidates may expire before or shortly after such product candidates are approved and commercialized;
- the patent and patent enforcement laws of some foreign jurisdictions do not protect intellectual property rights to the same extent as laws in the United States, and many companies have encountered significant difficulties in protecting and defending such rights in foreign jurisdictions; and
- we may not develop additional proprietary technologies that are patentable.

Any of these factors could hurt our ability to gain full patent protection for our products. Registered trademarks and trademark applications in the United States and other countries are subject to similar risks as described above for patents and patent applications, in addition to the risks described below.

Further, a third party may misappropriate or reverse engineer our LAT platform technology, which could limit our ability to stop others from using or commercializing similar or identical technology and resultant product candidates, product technology or prodrugs, or limit the duration of the trade secret protection of our LAT platform technology.

Moreover, we may be subject to a third-party preissuance submission of prior art to the USPTO, or become involved in opposition, nullity, derivation, reexamination, *inter partes* review, post-grant review or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or drugs and compete directly with us, without payment to us or result in our inability to manufacture or commercialize drugs without infringing third-party patent rights. In addition, if the breadth or strength of protection provided by our

patents and patent applications is threatened, it could dissuade companies from collaborating with us to seek patent protection or to license, develop or commercialize current or future product candidates.

In addition, the issuance of a patent is not conclusive as to its inventorship, ownership, scope, validity or enforceability, and our owned and licensed patents may be challenged in the courts, patent offices and tribunals in the United States and abroad. Such challenges may result in loss of exclusivity or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and drugs, or limit the duration of the patent protection of our product technology, product candidates and prodrugs.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents.

On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted in the United States, redefine prior art and may also affect patent litigation. The USPTO recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first-to-file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. In addition, patent reform legislation may pass in the future that could lead to additional uncertainties and increased costs surrounding the prosecution, enforcement and defense of our owned and licensed patents and/or patent applications.

We may become involved in lawsuits to protect or enforce our patents or other intellectual property, which could be expensive, time consuming and unsuccessful.

Competitors may infringe our issued patents or other intellectual property. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time consuming. Any claims we assert against perceived infringers could provoke those parties to assert counterclaims against us alleging that we infringe their intellectual property rights. In addition, in a patent infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology or its prior use by a third party. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly, which would undermine our competitive position.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could significantly harm business.

Our commercial success depends upon our ability, and the ability of any collaborators, to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing the proprietary rights of third parties. There is considerable intellectual property litigation in the biotechnology and pharmaceutical industries. In particular, we are focused on developing product candidates based on widely used therapeutic agents or drugs, many of which may be protected by proprietary rights of third parties. Although we seek to develop proprietary prodrug formulations that do not infringe the intellectual property rights of others, we may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our NME prodrugs or other aspects of our technology, including, for example, interference or derivation proceedings before the USPTO. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future.

If we are found to infringe a third party's intellectual property rights, we could be required to obtain a license from such third party to continue developing and marketing our technology and drugs. However, we may not be able to obtain any required license on commercially reasonable terms, or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. We could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some or all of our business operations.

Competing products may also be sold in other countries in which our patent coverage might not exist or be as strong. If we lose a foreign patent lawsuit alleging our infringement of a competitor's patent, we could be prevented from marketing our products in one or more foreign countries. As a result, our ability to grow our business and compete in the market may be harmed.

Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities.

In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could hurt the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could compromise our ability to compete in the marketplace.

We may need to license intellectual property from third parties, and such licenses may not be available or may not be available on commercially reasonable terms.

A third party may hold intellectual property rights, including patent rights, that are important or necessary to the development of our product candidates. It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our product candidates, in which case we would be required to obtain a license from these third parties. Such a license may not be available on commercially reasonable terms, or at all, and we could be forced to accept unfavorable contractual terms. If we are unable to obtain such licenses on commercially reasonable terms, our business could be harmed.

We may be required to reduce the scope of our intellectual property due to third-party intellectual property claims.

Our competitors may have filed, and may in the future file, patent applications covering technology similar to ours. Any such patent application may have priority over our patent applications, which could further require us to obtain rights to issued patents covering such technologies. If another party has filed a U.S. patent application on inventions similar to ours that claims priority to an application filed prior to March 16, 2013, we may have to participate in an interference proceeding declared by the USPTO to determine priority of invention in the United States. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful if, unbeknownst to us, the other party had independently arrived at the same or similar invention prior to our own invention, resulting in a loss of our U.S. patent position with respect to such inventions. In addition, changes enacted on

March 16, 2013 to the U.S. patent laws under the Leahy-Smith Act resulted in the United States changing from a “first to invent” country to a “first to file” country. As a result, we may lose the ability to obtain a patent if a third party files with the USPTO first and could become involved in proceedings before the USPTO to resolve disputes related to inventorship. We may also become involved in similar proceedings in other jurisdictions.

Furthermore, recent changes in U.S. patent law under the Leahy-Smith Act allows for post-issuance challenges to U.S. patents, including *ex parte* reexaminations, *inter partes* reviews and post-grant reviews. There is significant uncertainty as to how the new laws will be applied. If our U.S. patents are challenged using such procedures, we may not prevail, possibly resulting in altered or diminished claim scope or loss of patent rights altogether. Similarly, some countries, notably Europe, also have post-grant opposition proceedings that can result in changes in scope or cancellation of patent claims.

We may be subject to claims by third parties asserting that we or our employees have misappropriated their intellectual property, or claiming ownership of what we regard as our own intellectual property.

Many of our employees were previously employed at other biotechnology or pharmaceutical companies. Although we try to ensure that our employees do not use the proprietary information, show-how or know-how of others in their work for us, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of any such employee’s former employer. For example, in March 2012 we settled litigation regarding similar matters with Shire. We may also in the future be subject to claims that we have caused an employee to breach the terms of his or her non-competition or non-solicitation agreement. Litigation may be necessary to defend against these potential claims.

In addition, while it is our policy to require our employees and contractors who may be involved in the development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who in fact develops intellectual property that we regard as our own. Our and their assignment agreements may not be self-executing or may be breached, and we may be forced to bring claims against third parties, or defend claims they may bring against us, to determine the ownership of what we regard as our intellectual property.

If we fail in prosecuting or defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A court could prohibit us from using technologies or features that are essential to our products, if such technologies or features are found to incorporate or be derived from the trade secrets or other proprietary information of the former employers. Even if we are successful in prosecuting or defending against such claims, litigation could result in substantial costs and could be a distraction to management. In addition, any litigation or threat thereof may adversely affect our ability to hire employees or contract with independent service providers. Moreover, a loss of key personnel or their work product could hamper or prevent our ability to commercialize our products.

Any trademarks we may obtain may be infringed or successfully challenged, resulting in harm to our business.

We expect to rely on trademarks as one means to distinguish any of our product candidates that are approved for marketing from the products of our competitors. We have not yet solicited trademarks for our product candidates and have not yet begun the process of applying to register trademarks for our product candidates. Once we select trademarks and apply to register them, our trademark applications may not be approved. Third parties may oppose or attempt to cancel our trademark applications or trademarks, or otherwise challenge our use of the trademarks. In the event that our

trademarks are successfully challenged, we could be forced to rebrand our products, which could result in loss of brand recognition and could require us to devote resources to advertising and marketing new brands. Our competitors may infringe our trademarks and we may not have adequate resources to enforce our trademarks.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to seeking patent and trademark protection for our product candidates, we also rely on trade secrets, including unpatented show-how, know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect our trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators, outside scientific collaborators, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets. Monitoring unauthorized uses and disclosures of our intellectual property, including our trade secrets, is difficult, and we do not know whether the steps we have taken to protect our intellectual property will be effective. In addition, we may not be able to obtain adequate remedies for any such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets.

Moreover, our competitors may independently develop or reverse engineer knowledge, methods, show-how and know-how equivalent to our trade secrets. Competitors could purchase our products and replicate some or all of the competitive advantages we derive from our development efforts for technologies on which we do not have patent protection. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them, or those to whom they communicate such trade secrets, from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, our competitive position would be harmed.

Outside of the U.S. we cannot be certain that any country's patent or trademark office will not implement new rules that could seriously affect how we draft, file, prosecute and maintain patents, trademarks and patent and trademark applications.

We cannot be certain that the patent or trademark offices of countries outside the United States will not implement new rules that increase costs for drafting, filing, prosecuting and maintaining patents, trademarks and patent and trademark applications or that any such new rules will not restrict our ability to file for patent protection. For example, we may elect not to seek patent protection in some jurisdictions or for some inventions in order to save costs. We may be forced to abandon or return the rights to specific patents due to a lack of financial resources.

Risks Related to the Commercialization of Our Product Candidates

If we are unable to establish sales, marketing and distribution capabilities for our product candidates, we may not be successful in commercializing those product candidates in the United States, if and when they are approved.

We do not have a sales or marketing infrastructure and have no experience in the sale, marketing or distribution of pharmaceutical products. To achieve commercial success for any product candidate for which we may obtain marketing approval in the United States, we will need to enter into collaborations with one or more parties or establish our own sales and marketing organization. We have not yet determined our commercialization strategy for KP201/APAP or any of our other product candidates. Should we decide to establish our own sales, marketing and distribution capabilities, we

would encounter a number of risks. For example, recruiting and training a sales force is expensive and time consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Factors that may inhibit our efforts to commercialize our product candidates on our own include:

- our inability to recruit, train and retain adequate numbers of effective sales and marketing personnel;
- our inability to access government and commercial health plan formularies or secure preferred coverage and reimbursement levels;
- the inability of sales personnel to obtain access to physicians or persuade adequate numbers of physicians to prescribe any future NME prodrug products;
- the lack of complementary drugs to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines;
- liability for personnel, including sales personnel, failing to comply with applicable legal requirements; and
- costs associated with maintaining compliance with the FDA's marketing and promotional requirements, including ongoing training and monitoring, as well as unforeseen costs and expenses associated with creating an independent sales and marketing organization.

If we decide not to or are unable to establish our own sales, marketing and distribution capabilities and, instead, enter into arrangements with third parties to perform these services, our product revenue and our profitability, if any, are likely to be lower than if we were to sell, market and distribute any product candidates that we develop ourselves. In addition, we may not be successful in entering into arrangements with third parties to sell, market and distribute our product candidates or may be unable to do so on terms that are favorable to us, including as a result of restrictions in the Deerfield facility. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our product candidates effectively. If we do not establish sales, marketing and distribution capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

Even if any of our product candidates receives marketing approval, they may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success.

If any of our product candidates receives marketing approval, they may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. If our product candidates do not achieve an adequate level of market acceptance, we may not generate significant product revenue and we may not become profitable. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and potential advantages compared to alternative treatments, including less expensive generic treatments;
- the ability to obtain abuse-deterrent claims and GI motility or OIC-related language in the labels for KP201/APAP and most of our other product candidates;
- our ability to offer our NME prodrug products for sale at competitive prices;
- the clinical indications for which our product candidates are approved;
- the convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;

- the cost of treatment in relation to alternative treatments;
- the steps that prescribers and dispensers must take, since most of our product candidates are controlled substances, as well as the perceived risks based upon their controlled substance status;
- the ability to manufacture our product in sufficient quantities and yields;
- the strength of marketing and distribution support;
- the availability of third-party coverage and adequate reimbursement or willingness of patients to pay out of pocket in the absence of third-party coverage;
- the prevalence and severity of any side effects;
- any potential unfavorable publicity;
- any restrictions on the use, sale or distribution of our product candidates, including through REMS; and
- any restrictions on the use of our NME prodrug products together with other medications.

We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.

Our industry is characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. We will face competition and potential competition from a number of sources, including pharmaceutical and biotechnology companies, specialty pharmaceutical companies, generic drug companies, drug delivery companies and academic and research institutions. Our competitors may develop or market drugs that are more effective, more convenient, more widely used and less costly or have a better safety profile than our products and these competitors may also be more successful than us in manufacturing and marketing their products.

If approved, our abuse-deterrent opioid product candidates will face competition from commercially available branded and generic opioid drugs including hydrocodone, hydromorphone and oxycodone, fentanyl, morphine, oxymorphone and methadone, as well as other marketed non-opioid products for the treatment of pain, and potential competition from opioid and non-opioid products for the treatment of pain that are currently in clinical development. In addition, our product candidates will face competition from approved and abuse-deterrent labeled opioid drugs and potential competition from abuse-deterrent opioid drugs that are currently in clinical development. We also indirectly compete with multiple companies that have developed and are developing abuse-deterrent technologies that may be applied to a variety of drugs, including those being developed for the treatment of acute moderate to moderately severe pain as well as for other indications that we are pursuing or may pursue in the future. If approved, our abuse-deterrent opioid product candidates may face competition from products or technologies from companies including Actavis plc, Acura Pharmaceuticals, Inc., Cara Therapeutics, Inc., Collegium Pharmaceutical, Inc., Depomed, Inc., DURECT Corporation, Egalet Corporation, Elite Pharmaceuticals, Inc., Endo International plc, Grünenthal Group, IntelliPharmaceutics International Inc., Mallinckrodt plc, Mylan Inc., Nektar Therapeutics, Pain Therapeutics, Inc., Pfizer Inc., Purdue Pharma L.P., Signature Pharmaceuticals, Teva Pharmaceutical Industries Ltd., Trevena Inc. and UCB S.A.

If approved, KP201/APAP will compete against currently marketed branded and generic, IR hydrocodone/APAP combination products indicated for the treatment of acute moderate to moderately severe pain. Some of these currently marketed products include AbbVie's Vicodin, Actavis's Norco, Shionogi's Xodol and UCB Pharma's Lortab, in addition to multiple other branded and generic hydrocodone/APAP combination products. In addition, if approved, KP201/APAP will face potential competition from any abuse-deterrent, IR hydrocodone/APAP combination products that are currently in or may enter into clinical development.

If approved, our KP415 product candidate will compete against branded and generic products marketed by companies including Actavis plc, Eli Lilly and Company, Johnson & Johnson, Mallinckrodt plc, Novartis AG, Noven Therapeutics, Shionogi Inc., Shire plc, Teva Pharmaceutical Industries Ltd. and UCB S.A. In addition, if approved, our KP415 product candidate will face potential competition from any abuse-deterrent or other products for the treatment of ADHD that are currently in or which may enter into clinical development.

If approved, our KP303 product candidate will compete against branded and generic products for the treatment of CNS disorders such as schizophrenia, bipolar disorder and major depressive disorder marketed by companies including Astrazeneca PLC, Lupin Pharmaceuticals, Inc., Pfizer Inc., Roxanne Laboratories, Inc. and Teva Pharmaceutical Industries Ltd. as well as potentially compete with products for the treatment of these CNS disorders that are currently in or may enter into clinical development.

We believe the key competitive factors that will affect the development and commercial success of our product candidates include their potential degree of abuse deterrence, differentiated side-effect profiles, onset of action, bioavailability, therapeutic efficacy, convenience of dosing, safety, tolerability and cost. Many of our potential competitors have substantially greater financial, technical and human resources than we do, as well as more experience in the development of product candidates, obtaining FDA and other regulatory approvals of products and the commercialization of those products. Consequently, our competitors may develop abuse-deterrent or other products for the treatment of acute moderate to moderately severe pain, or for other indications we are pursuing or may pursue in the future, and such competitors' products may be more effective, better tolerated and less costly than our product candidates. Our competitors may also be more successful in manufacturing and marketing their products than we are. We will also face competition in recruiting and retaining qualified personnel and establishing clinical trial sites and patient enrollment in clinical trials.

Our competitors also may obtain FDA or other regulatory approval for their product candidates more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. If the competitor's product were similar to our product candidates, we may be required to seek approval via alternative pathways, such as the ANDA, which is used for the development of generic drug products. We may also be blocked from product marketing by periods of patent protection or regulatory exclusivity.

In addition, our ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of generic drugs. For some of the indications that we are pursuing, drugs used off-label serve as cheaper alternatives to our product candidates. Their lower prices could result in significant pricing pressure, even if our product candidates are otherwise viewed as a preferable therapy. Additional drugs may become available on a generic basis over the coming years.

Many of our potential competitors have substantially greater financial, technical and human resources than we do, as well as more experience in the development of product candidates, obtaining FDA and other regulatory approvals of products, and the commercialization of those products. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. Consequently, our competitors may develop abuse-deterrent or other products for the treatment of pain or ADHD or for other indications we may pursue in the future, and such competitors' products may be more effective, better tolerated and less costly than our product candidates. Our competitors may also be more successful in manufacturing and marketing their products than we are. We will also face competition in recruiting and retaining qualified personnel and establishing clinical trial sites and subject enrollment in clinical trials.

We may not be able to obtain either five-year FDA regulatory exclusivity as an NCE or three-year FDA regulatory exclusivity.

The FDA provides periods of regulatory exclusivity following their approval of an NDA, which provide the holder of an approved NDA limited protection from new competition in the marketplace for the innovation represented by its approved drug. Five-year exclusivity precludes approval of 505(b)(2) applications or ANDAs by delaying the submission or approval of the application, while three-year exclusivity precludes the approval of the application. We intend to seek new chemical entity, or NCE, status for KP415, and we may seek NCE status for other NME prodrug product candidates as appropriate. Five years of exclusivity are available to NCEs following the approval of an NDA by the FDA. An NCE is a drug that contains no active moiety that has been approved by the FDA in any other NDA. If a product is not eligible for the NCE exclusivity, it may be eligible for three years of exclusivity. Three-year exclusivity is available to the holder of an NDA, including a 505(b)(2) NDA, for a particular condition of approval, or change to a marketed product, such as a new formulation for a previously approved product, if one or more new clinical trials, other than bioavailability or bioequivalence trials, were essential to the approval of the application and were conducted or sponsored by the applicant.

There is a risk that the FDA may disagree with any claim that we may make that KP415 or any of our NME prodrug product candidates are NCEs and therefore entitled to five-year exclusivity. The FDA may also take the view that the studies that we are conducting are not clinical trials, other than bioavailability and bioequivalence studies, that are essential to approval and therefore do not support three-year exclusivity. Further, to the extent that the basis for exclusivity is not clear, the FDA may determine to defer a decision until it receives an application which necessitates a decision.

If we do obtain either five or three years of exclusivity, such exclusivity will not block all potential competitors from the market. Competitors may be able to obtain approval for similar products with different forms of abuse-deterrent mechanisms or may be able to obtain approval for similar products without an abuse-deterrent mechanism.

Even if we are able to commercialize any product candidates, they may be subject to unfavorable pricing regulations, third-party coverage and reimbursement policies or healthcare reform initiatives.

Our ability to commercialize any product candidates successfully will depend, in part, on the extent to which coverage and adequate reimbursement for our product candidates will be available from government payor programs at the federal and state levels, including Medicare and Medicaid, private health insurers, managed care plans and other third-party payors. Government authorities and other third-party payors decide which medical products they will pay for and establish reimbursement levels, including co-payments. A trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and other third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medical products. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for drugs and products. Coverage and reimbursement may not be available for any product that we commercialize and, even if these are available, the level of reimbursement may not be satisfactory. Inadequate reimbursement levels may adversely affect the demand for, or the price of, any product candidate for which we obtain marketing approval. Obtaining and maintaining adequate reimbursement for our NME prodrug products may be difficult. We may be required to conduct expensive pharmacoeconomic studies to justify coverage and reimbursement or the level of reimbursement relative to other therapies. Moreover, the trend has been for government and commercial health plans and their pharmacy benefit managers to commoditize drug products through therapeutic equivalence determinations, making formulary decisions based on cost. If coverage and adequate reimbursement are not available or reimbursement is available only at limited levels, we may not be able to successfully commercialize any product candidates for which marketing approval is obtained.

There may be significant delays in obtaining coverage and reimbursement for newly approved NME prodrug products, and coverage may be more limited than the indications for which the product is approved by the FDA or similar regulatory authorities outside the United States. Moreover, eligibility for coverage and reimbursement does not imply that a product will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution expenses. Interim reimbursement levels for new NME prodrug products, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Reimbursement rates may vary according to the use of the product and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for NME prodrug products may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Private third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Except for certain government health care programs, such as the Department of Defense's TRICARE Uniform Formulary, no uniform policy requirement for coverage and reimbursement for drug products exists among third-party payors in the United States. Even state Medicaid programs have their own preferred drug lists that may disadvantage non-preferred brand drugs. Therefore, coverage and reimbursement can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained at all. Our inability to promptly obtain coverage and adequate reimbursement rates from both government-funded and private payors for any approved NME prodrug products that we develop could significantly harm our operating results, our ability to raise capital needed to commercialize prodrugs and our overall financial condition.

The regulations that govern marketing approvals, pricing, coverage and reimbursement for new drugs vary widely from country to country. Current and future legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. Some countries require approval of the sale price of a product before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay commercial launch of the product, possibly for lengthy time periods, and negatively impact the revenue able to be generated from the sale of the product in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates, even if our product candidates obtain marketing approval.

There can be no assurance that our product candidates, if they are approved for sale in the United States or in other countries, will be considered medically reasonable and necessary for a specific indication, that they will be considered cost-effective by third-party payors, that coverage or an adequate level of reimbursement will be available, or that third-party payors' reimbursement policies will not adversely affect our ability to sell our product candidates profitably if they are approved for sale.

We may be subject to enforcement action if we engage in improper marketing or promotion of our products.

The FDA closely regulates promotional materials and other promotional activities. Even if the FDA initially approves product labeling that includes a description of the abuse-deterrent claims, the FDA may object to our marketing claims and product advertising campaigns. Failure to comply with the FDA's promotional, marketing and advertising laws and regulations could lead to the issuance of warning letters, cyber letters, or untitled letters, adverse publicity, the requirement for dear-health-care- provider letters or other corrective information, fines and other monetary penalties, civil or criminal

prosecution, including False Claims Act liability, restrictions on our operations and other operating requirements through consent decrees or corporate integrity agreements, debarment, exclusion from participation in federal health care programs and refusal of government contracts or future orders under existing contracts, among other consequences. Any of these consequences would harm the commercial success of our products.

Further, our promotional materials, statements and training methods must comply with the FDA's prohibition of the promotion of unapproved, or off-label, use. Physicians may use our products off-label, as the FDA does not restrict or regulate a physician's independent choice of treatment within the practice of medicine. However, if the FDA determines that our promotional materials, statements or training constitutes promotion of an off-label use, it could request that we modify our promotional materials, statements or training methods or subject us to regulatory or enforcement actions, such as the issuance of an untitled letter, a warning letter, injunction, seizure, civil fine, disgorgement of money, civil whistleblower or "qui tam" actions, operating restrictions or criminal penalties. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our promotional or training materials to constitute promotion of an off-label use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false claims for reimbursement. In that event, our reputation could be damaged and adoption of the products could be impaired. In addition, the off-label use of our products may increase the risk of product liability claims. Product liability claims are expensive to defend and could divert our management's attention, result in substantial damage awards against us and harm our reputation.

Product liability lawsuits against us could cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials and will face an even greater risk if we commercialize any NME prodrug products that we may develop. This includes the risk that our products may be misused. For example, we anticipate that, if approved, our products may carry boxed warnings regarding lethality if our oral tablets are prepared for injection and hepatotoxicity, as is commonly done by abusers of opioids. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or products that we may develop;
- injury to our reputation and significant negative media attention;
- termination of clinical trial sites or entire trial programs;
- withdrawal of clinical trial participants;
- initiation of investigations by regulators;
- significant costs to defend the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards paid to trial participants or patients;
- product recalls, withdrawals or labeling revisions and marketing or promotional restrictions;
- loss of revenue;
- reduced resources of our management to pursue our business strategy; and
- the inability to commercialize any NME prodrug products that we may develop.

We currently hold $8.0 million in product liability insurance coverage in the aggregate, with a per incident limit of $8.0 million, which may not be adequate to cover all liabilities that we may incur. We may need to increase our insurance coverage as we expand our clinical trials or if we commence commercialization of our product candidates. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

A variety of risks associated with international operations could materially adversely affect our business.

We expect to engage in significant cross-border activities, and we will be subject to risks related to international operations, including:

- different regulatory requirements for maintaining approval of drugs in foreign countries;
- reduced protection for contractual and intellectual property rights in some countries;
- unexpected changes in tariffs, trade barriers and regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country;
- workforce uncertainty in countries where labor unrest is more common than in North America;
- tighter restrictions on privacy and the collection and use of patient data; and
- business interruptions resulting from geopolitical actions, including war and terrorism, or natural disasters including earthquakes, typhoons, floods and fires.

Risks Related to Regulatory Approval of Our Product Candidates and Other Legal Compliance Matters

If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals, we will not be able to commercialize our product candidates, and our ability to generate revenue will be materially impaired.

Our product candidates and the activities associated with their development and commercialization, including their design, research, testing, manufacture, safety, efficacy, quality control, recordkeeping, labeling, packaging, storage, approval, advertising, marketing, promotion, sale, distribution, import, export, and reporting of safety and other post-market information, are subject to comprehensive regulation by the FDA, DEA and other regulatory agencies in the United States and by the European Medicines Agency, or EMA, and similar regulatory authorities outside the United States. Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate. We have not received approval to market any of our product candidates from regulatory authorities in any jurisdiction. Through the prior experience of our management, we have only limited experience in filing and supporting the applications necessary to gain marketing approvals and expect to rely on third-party CROs to assist us in this process. Securing marketing approval requires the submission of extensive preclinical and clinical data and supporting information to regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy. Securing marketing approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the regulatory authorities. Prior to product launch, the DEA would then need to determine the controlled substance schedule of KP201/APAP, taking into account the recommendation of the FDA. Our product candidates may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining marketing approval or prevent or limit commercial use. If any of our product candidates receives marketing approval, the accompanying label may limit its approved use, which could limit sales of the product.

The process of obtaining marketing approvals, both in the United States and abroad, is expensive and may take many years, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. We may not gain approval of our product candidates, or even if we obtain regulatory approval for a product

candidate, product candidates may be subject to fewer or more limited indications, including more limited subject populations, than we request, and regulatory authorities may require that contraindications, warnings or precautions be included in the product labeling, including a black box warning, may grant approval contingent on the performance of costly post-marketing clinical trials or other post-market requirements, such as REMS, may require post-marketing surveillance or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. Regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data is insufficient for approval and require additional preclinical, clinical or other studies. Regulatory authorities may further disagree with the study design, assessment tools or evaluations that we conducted. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent marketing approval of a product candidate. Any marketing approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

If we experience delays in obtaining approval or if we fail to obtain approval of our product candidates, the commercial prospects for our product candidates may be harmed and our ability to generate revenue will be materially impaired.

Failure to obtain marketing approval in international jurisdictions would prevent our product candidates from being marketed abroad.

In order to market and sell our products in the European Union and any other jurisdictions, we must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside the United States, it is required that the product be approved for reimbursement before the product can be approved for sale in that country. We may not obtain approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. However, failure to obtain approval in one jurisdiction may impact our ability to obtain approval elsewhere. We may not be able to file for marketing approvals and may not receive necessary approvals to commercialize our products in any market.

A variety of risks associated with marketing our product candidates internationally could affect our business.

We may seek regulatory approval for our product candidates outside of the United States and, accordingly, we expect that we will be subject to additional risks related to operating in foreign countries if we obtain the necessary approvals, including:

- differing regulatory requirements in foreign countries;
- the potential for so-called parallel importing, which is what happens when a local seller, faced with high or higher local prices, opts to import goods from a foreign market with low or lower prices rather than buying them locally;
- unexpected changes in tariffs, trade barriers, price and exchange controls and other regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;

- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country;
- difficulties staffing and managing foreign operations;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- potential liability under the Foreign Corrupt Practices Act of 1977 or comparable foreign regulations;
- challenges enforcing our contractual and intellectual property rights, especially in those foreign countries that do not respect and protect intellectual property rights to the same extent as the United States;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war and terrorism.

These and other risks associated with our international operations may compromise our ability to achieve or maintain profitability.

Any product candidate for which we obtain marketing approval could be subject to post-marketing restrictions or recall or withdrawal from the market, and we may be subject to penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our product candidates, when and if any of them are approved.

Any product candidate for which we obtain marketing approval will be subject to a comprehensive regulatory scheme, which includes the regulation of manufacturing processes, post-approval clinical data, labeling, advertising, marketing, distribution and promotional activities for such product, by the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, payment of substantial annual product and establishment fees, labeling requirements, promotional, marketing and advertising requirements, requirements related to further development, packaging, storage and distribution requirements, cGMP requirements relating to manufacturing, quality control, quality assurance and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping. If there are any modifications to the drug, including changes in indications, labeling, manufacturing processes or facilities, or new safety issues arise, a new or supplemental NDA, a post-implementation notification or other reporting may be required or requested depending on the change, which may require additional data or additional preclinical studies and clinical trials.

Even if marketing approval of a product candidate is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or to the conditions of approval, including the requirement to implement a REMS, which could involve requirements for, among other things, a medication guide, special training for prescribers and dispensers, and patient registries. If any of our product candidates receives marketing approval, the accompanying label may limit its approved uses, including more limited subject populations, than we request, and regulatory authorities may require that contraindications, warnings or precautions be included in the product labeling, including a black box warning, or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate, which could limit sales of the product.

The FDA may also impose requirements for costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of the product. The FDA closely regulates the post-approval marketing and promotion of products to ensure products are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA imposes stringent restrictions on manufacturers' communications regarding off-label use and if we do not market our NME prodrug products, if any, for their approved indications, we may be subject to enforcement action for off-label marketing. Violations of the Federal Food, Drug and Cosmetic Act relating to the promotion of prescription drugs may lead to a number of actions and penalties, including warning letters, cyber letters, or untitled letters, adverse publicity, the requirement for dear-health-care-provider letters or other corrective information, fines and other monetary penalties, civil or criminal prosecution, including False Claims Act liability, restrictions on our operations and other operating requirements through consent decrees or corporate integrity agreements, debarment, exclusion from participation in federal health care programs and refusal of government contracts or future orders under existing contracts, among other consequences.

In addition, later discovery of previously unknown adverse events or other problems with our NME prodrug products, including those related to manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may have negative consequences, including:

- adverse inspectional findings;
- restrictions on such NME prodrug products, distribution, manufacturers or manufacturing processes;
- restrictions on the labeling or marketing of a drug;
- additional warnings or otherwise restrict the product's indicated use, label, or marketing;
- issuance of safety alerts, dear-healthcare-provider letters, press releases or other communications containing warnings regarding the product;
- requirement to establish or modify a REMS;
- requirement to conduct post-marketing studies or surveillance;
- restrictions on drug distribution or use;
- requirements to conduct post-marketing studies or clinical trials;
- warning letters;
- recall or withdrawal of the NME prodrug products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit and other delays;
- clinical holds, or the suspension or termination of ongoing clinical trials;
- fines, restitution or disgorgement of profits or revenue;
- suspension or withdrawal of marketing approvals or other permits or voluntary suspension of marketing;
- refusal to permit the import or export of our NME prodrug products;
- reputational harm;
- refusal of government contracts or future orders under existing contracts, exclusion from participation in federal health care programs, and corporate integrity agreements;
- product seizure or detention; or
- injunctions or the imposition of civil or criminal penalties, including False Claims Act liability.

Non-compliance with European Union requirements regarding safety monitoring or pharmacovigilance, and with requirements related to the development of drugs for the pediatric population, can also result in significant financial penalties. Similarly, failure to comply with the European Union's requirements regarding the protection of personal information can also lead to significant penalties and sanctions.

Our employees, independent contractors, principal investigators, CROs, consultants, commercial collaborators, contract manufacturers, service providers and other vendors may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.

We are exposed to the risk of misconduct by employees and independent contractors, such as principal investigators, CROs, consultants, commercial collaborators, contract manufacturers, service providers and other vendors. Such misconduct could include failures to comply with FDA regulations, to provide accurate information to the FDA, to comply with manufacturing standards that we have established or that are established by regulation, to comply with federal and state healthcare fraud and abuse laws, to report drug pricing, financial information or data accurately or to disclose unauthorized activities to us. In particular, sales, marketing and other business arrangements in the healthcare industry are subject to extensive laws intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws may restrict or prohibit a wide range of business activities, including, but not limited to, research, manufacturing, distribution, pricing, discounting, marketing, advertising and promotion, sales commissions, customer incentive programs and other business arrangements. Employee and independent contractor misconduct could also involve the improper use of individually identifiable information, including, without limitation, information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. In addition, federal procurement laws impose substantial penalties for misconduct in connection with government contracts and require certain contractors to maintain a code of business ethics and conduct. It is not always possible to identify and deter employee and independent contractor misconduct, and any precautions we take to detect and prevent improper activities may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws. If any such actions are instituted against us, those actions could have a significant impact on our business, including the imposition of warning letters, untitled letters, cyber letters, seizure or recall of products, injunctions, withdrawal of product approval or other permits, clinical holds and termination of clinical trials, FDA refusal to approve pending applications, product detentions, FDA or DEA consent decrees, restriction or suspension of manufacturing and distribution, debarment, refusal to allow product import or export, adverse publicity, refusal of government contracts or future orders under existing contracts, dear-health-care-provider letters or other warnings or corrective information, recalls, delays, civil, criminal and administrative penalties including False Claims Act liability, damages, monetary fines, disgorgement, restitution, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, corporate integrity agreements, contractual damages, reputational harm, diminished profits and future earnings and curtailment or restructuring of our operations, among other consequences, any of which could adversely affect our ability to operate.

Our current and future relationships with healthcare professionals, principal investigators, consultants, customers and third-party payors in the United States and elsewhere may be subject, directly or indirectly, to applicable anti-kickback, fraud and abuse, false claims, physician payment transparency, health information privacy and security and other healthcare laws and regulations, which could expose us to penalties.

Healthcare providers, physicians and third-party payors in the United States and elsewhere will play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our current and future arrangements with healthcare professionals, principal investigators, consultants, customers and third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act, that may constrain the business or financial arrangements and relationships through which we sell, market and distribute any product candidates for which we obtain marketing approval. In addition, we may be subject to physician payment transparency laws and patient privacy and security regulation by the federal government and by the

U.S. states and foreign jurisdictions in which we conduct our business. The applicable federal, state and foreign healthcare laws that may affect our ability to operate include the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, receiving or paying remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, lease, order or arranging for the purchase, lease or order of, any good, facility, item or service, for which payment may be made, in whole or in part, under federal and state healthcare programs such as Medicare and Medicaid;
- federal civil and criminal false claims laws, including the federal False Claims Act, which impose criminal and civil penalties, including civil whistleblower or *qui tam* actions, against individuals or entities for, among other things, knowingly presenting, or causing to be presented, to the federal government, including the Medicare and Medicaid programs, claims for payment that are false or fraudulent or making or using a false record or statement material to a false or fraudulent claim or to avoid, decrease or conceal an obligation to pay money to the federal government, including erroneous pricing information on which mandatory rebates, discounts and reimbursement amounts are based, or in the case of the civil False Claims Act, for conduct constituting reckless disregard for the truth;
- the civil monetary penalties statute, which imposes penalties against any person or entity who, among other things, is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of whether the payor is public or private, knowingly and willfully embezzling or stealing from a health care benefit program, willfully obstructing a criminal investigation of a health care offense and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 and their respective implementing regulations, which impose obligations on covered entities, including healthcare providers, health plans, and healthcare clearinghouses, as well as their respective business associates that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal Open Payments program, created under Section 6002 of Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the ACA, and its implementing regulations, which imposes new annual reporting requirements for certain manufacturers of drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with certain exceptions, to annually report certain payments and transfers of value provided to physicians and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals, and to report annually certain ownership and investment interests held by physicians and their immediate family members; and
- comparable state and foreign laws, which may be broader in scope than the analogous federal laws and may differ from each other in significant ways.

Efforts to ensure that our current and future business arrangements with third parties will comply with applicable healthcare laws and regulations may involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws, or that our compliance systems are inadequate to detect and report such conduct or to report accurate pricing information to the government. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, including, without limitation, damages, fines, imprisonment, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations, which could significantly harm our business. If any of the physicians or other healthcare providers or entities with whom we currently, or expect to, do business, including future collaborators, is found not to be in compliance with applicable laws, they and we may be subject to penalties and potential exclusion from participation in healthcare programs as a result of their non-compliance.

Recently enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and affect the prices we may obtain.

In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could, among other things, prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any product candidates for which we obtain marketing approval.

Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives. In March 2010, President Obama signed into law the ACA, a sweeping law intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for the healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms.

Among the provisions of the ACA of importance to our potential product candidates are the following:

- an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13.0% of the average manufacturer price for branded drugs and generic drugs, respectively;
- expansion of healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers and enhanced penalties for non-compliance;
- establishment of a new and distinct methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices (generally as negotiated between the Medicare Part D plan and the pharmacy) of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer’s outpatient drugs to be covered under Medicare Part D;

- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations and extension of the inflation percentage applicable to existing branded drugs to new formulations for purposes of computing the inflation penalty component of Medicaid rebates;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories for certain individuals with income at or below 133% of the Federal Poverty Level beginning in 2014, thereby potentially increasing manufacturers' Medicaid rebate liability;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- the new requirements under the federal Open Payments program and its implementing regulations;
- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians; and
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect in April 2013 and will stay in effect through 2024 unless additional Congressional action is taken. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, further reduced Medicare payments to several providers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding, which could negatively impact customers for our product candidates, if approved, and, accordingly, our financial operations.

We expect that the ACA, as well as other healthcare reform measures that may be adopted in the future, may, among other things, result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our NME prodrug product candidates.

Legislative and regulatory proposals and enacted statutes have been made to expand post-approval requirements and restrict sales and promotional activities for drugs. For instance, the recently enacted Drug Supply Chain Security Act imposes new obligations on manufacturers of pharmaceutical products, among others, related to product tracking and tracing. Among the requirements of this new legislation, manufacturers will be required to provide specified information regarding the drug products they produce to individuals and entities to which product ownership is transferred, label drug products with a product identifier and keep specified records regarding the drug products. The transfer of information to subsequent product owners by manufacturers will eventually be required to be done electronically. Manufacturers will also be required to verify that purchasers of products are appropriately licensed. Further, under this new legislation, manufacturers will have drug product investigation, quarantine, disposition and FDA and trading-partner notification responsibilities related to counterfeit, diverted, stolen and intentionally adulterated products, as well as products that are the subject of fraudulent transactions or which are otherwise unfit for distribution such that they would be reasonably likely to result in serious health consequences or death.

We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements.

Governments outside the United States tend to impose strict price controls, which may affect our revenue, if any.

In some countries, particularly the countries of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain coverage and reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. If reimbursement of our NME prodrug products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be harmed, possibly materially.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could harm our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Our failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Our business and operations would suffer in the event of computer system failures.

Despite the implementation of security measures, our internal computer systems, and those of our CROs and other third parties on which we rely, are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our drug development programs. For example, the loss of clinical trial data from completed or ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach was to result in a loss of or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development of our product candidates could be delayed.

Risks Related to Employee Matters and Managing Our Growth

Our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on the management, research and development, clinical, financial and business development expertise of Travis C. Mickle, Ph.D., our president and chief executive officer, Gordon K. Johnson, our chief operating officer and chief financial officer, Christal M.M. Mickle, our vice president operations and product development, Sven Guenther, Ph.D., our executive vice president research and development, and Christopher M. Lauderback, our vice president commercial operations, as well as the other members of our scientific and clinical teams. Although we have employment agreements with each of our executive officers, these agreements do not obligate them to continue working for our company and they may terminate their employment with us at any time. Additionally, Mr. Mickle has consulting obligations to a third party in addition to his duties as our president and chief executive officer, which may limit his availability to us.

Recruiting and retaining qualified scientific and clinical personnel and, if we progress the development of our product pipeline toward scaling up for commercialization, manufacturing and sales and marketing personnel, will also be critical to our success. The loss of the services of our executive officers or other key employees could impede the achievement of our research, development and commercialization objectives and seriously harm our ability to successfully implement our business strategy. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, gain regulatory approval of and commercialize our NME prodrug product candidates. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these key personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may have commitments under consulting or advisory contracts with other entities that may limit their availability to us. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited.

We expect to expand our development and regulatory capabilities and potentially implement sales, marketing and distribution capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

As of September 30, 2014, we had 14 full-time employees. As our development progresses, we expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of research, drug development, regulatory affairs and, if any of our product candidates receives marketing approval, sales, marketing and distribution. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

Risks Related to this Offering, Ownership of Our Common Stock and Our Status as a Public Company

An active trading market for our common stock may not develop and you may not be able to resell your shares of our common stock at or above the initial offering price, if at all.

Prior to this offering, there has been no public market for our common stock. The initial public offering price for our common stock will be determined through negotiations with the underwriters and may not be indicative of the price at which our common stock will trade upon completion of this offering. Although we intend to apply to list our common stock on The NASDAQ Global Market, an active trading market for our shares may never develop or be sustained following this offering. If an active market for our common stock does not develop or is not sustained, it may be difficult for you to sell shares you purchased in this offering at an attractive price or at all.

The trading price of the shares of our common stock may be volatile, and purchasers of our common stock could incur substantial losses.

Our stock price may be volatile. The stock market in general and the market for pharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may not be able to sell their common stock at or above the price paid for the shares. The market price for our common stock may be influenced by many factors, including:

- actual or anticipated variations in our operating results;
- changes in financial estimates by us or by any securities analysts who might cover our stock;
- conditions or trends in our industry;
- stock market price and volume fluctuations of comparable companies and, in particular, those that operate in the pharmaceutical industry;
- announcements by us or our competitors of significant acquisitions, strategic partnerships or divestitures;
- announcements of investigations or regulatory scrutiny of our operations or lawsuits filed against us;
- capital commitments;
- investors' general perception of us and our business;
- recruitment or departure of key personnel; and
- sales of our common stock, including sales by our directors and officers or specific stockholders.

In addition, in the past, stockholders have initiated class action lawsuits against pharmaceutical and biotechnology companies following periods of volatility in the market prices of these companies' stock. Such litigation, if instituted against us, could cause us to incur substantial costs and divert management's attention and resources from our business. Further, companies listed on The NASDAQ Global Market, and biotechnology and pharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance.

If equity research analysts do not publish research or reports, or publish unfavorable research or reports, about us, our business or our market, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that equity research analysts publish about us and our business. We do not currently have and may never obtain research coverage by equity research analysts. Equity research analysts may elect not to provide research coverage of our common stock after the completion of this offering, and such lack of research coverage may adversely affect the market price of our common stock. In the event we do have equity research analyst coverage, we will not have any control over the analysts or the content and opinions included in their reports. The price of our stock could decline if one or more equity research analysts downgrade our stock or issue other unfavorable commentary or research. If one or more equity research analysts ceases coverage of us or fails to publish reports on us regularly, demand for our stock could decrease, which in turn could cause our stock price or trading volume to decline.

We may incur substantial costs as a result of ongoing litigation.

We are currently party to a lawsuit against DeWaay Financial Network, L.L.C., or DFN, a financial advisor and one of our warrant holders, in the Iowa District Court for Polk County, Iowa to resolve whether DFN has a valid (i) right of first refusal to serve as our exclusive financial advisor for specified strategic transactions, including a sale of our company, private and public capital raising transactions and joint ventures, licenses or similar transactions with respect to our product candidates or (ii) right to a cash fee equal to the greater of $250,000 or 1.5% of the total consideration received by us, our affiliates and our equity owners related to any such strategic transaction, including this offering and future offerings and the Deerfield facility, under an engagement agreement between us and DFN.

In the lawsuit, we are seeking a declaratory judgment finding invalid and unenforceable such purported right of first refusal and right to receive a cash fee related to any such strategic transaction. DFN filed an answer requesting that the court declare that such rights are valid and survive termination of the DFN Agreement and counterclaims requesting that the court award damages to DFN, including a fee based upon the total consideration that we have received and in the future will receive pursuant to the Deerfield facility. A trial date for the matter has been set for August 2015.

If it is finally determined that DFN has a valid right of first refusal or right to receive a cash fee related to any such strategic transaction, we could be required to pay to DFN a portion of the consideration received in any such strategic transaction, including this offering and future capital raising transactions. Such an outcome would increase our costs in entering into any such transaction and might prevent us from doing so altogether. Further, we cannot predict the timing or outcome of this litigation and irrespective of its outcome, this litigation may cause us to incur substantial costs in related legal fees and divert management's attention and resources from our business.

If you purchase shares of our common stock in this offering, you will suffer immediate dilution of your investment.

We expect the initial public offering price of our common stock to be substantially higher than the pro forma as adjusted net tangible book value per share of our common stock. Therefore, if you purchase shares of our common stock in this offering, you will pay a price per share that substantially exceeds our pro forma as adjusted net tangible book value per share after this offering. Based on an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, you will experience immediate dilution of $ per share, representing the difference between our pro forma as adjusted net tangible book value per share after this offering and the assumed initial public offering price. After this offering, we will also have an outstanding convertible note issued to Deerfield with a conversion price lower than the initial public offering price and options and warrants to purchase common stock with exercise prices lower than the initial public offering price. To the extent the outstanding convertible note is converted or outstanding options and warrants are exercised, there will be further dilution to investors in this offering.

A significant portion of our outstanding warrants are entitled to certain anti-dilution protections which, if triggered, may cause substantial dilution to your investment.

As of September 30, 2014, we have outstanding immediately exercisable warrants to purchase 4,159,777 shares of our common stock at a weighted average exercise price of $0.71 per share that include anti-dilution provisions pursuant to which the exercise price of such warrants will be adjusted downward if we issue any shares of our common stock or any securities convertible into our common stock at a price per share or with an exercise or conversion price less than the exercise price of such warrants. Upon such an event, the exercise price of these warrants will be automatically adjusted to equal the price per share paid for, the conversion price of or the exercise price of such securities, as applicable, and the number of shares of common stock issuable upon exercise of each warrant will be proportionately increased.

Additionally, in June 2014, we issued to Deerfield a warrant to purchase 14,423,076 shares of our Series D redeemable convertible preferred stock at an exercise price of $0.78 per share. Upon the closing of this offering, this warrant will become a warrant to purchase 14,423,076 shares of our common stock at an exercise price of $0.78 per share. Following completion of this offering, exercise price protection provisions in this warrant will go into effect, pursuant to which the exercise price of the warrant will be adjusted downward on a broad-based weighted-average basis if we issue or sell any shares of common stock, convertible securities, warrants or options at a sale or exercise price per share less than the greater of the warrant's exercise price or the closing sale price of our common stock on The NASDAQ Global Market on the last trading date immediately prior to such issuance. Each time we borrow a tranche under the Deerfield facility, we are obligated to issue to Deerfield a warrant with substantially the same terms and conditions.

Future sales and issuances of equity and debt securities could result in additional dilution to our stockholders.

We expect that we will need significant additional capital in the future to fund our planned operations, including to complete potential clinical trials for our product candidates. To raise capital, we may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. We may also borrow additional tranches under the Deerfield facility if the necessary conditions are satisfied. Each time we borrow a tranche under the Deerfield facility, we will simultaneously issue to Deerfield a warrant exercisable for a specified number of shares of our common stock. If we exercise our option to borrow the second tranche under the Deerfield facility, we will issue to Deerfield a warrant to purchase 9,615,385 shares of our common stock at an initial exercise price of $0.78 per share. Similarly, if we exercise our option to borrow the third and fourth tranches, in each instance, we will issue to Deerfield a warrant exercisable for the number of shares of our common stock equal to 60% of the principal amount of such disbursement divided by the volume weighted average sales price of our common stock for the 20 consecutive trading days immediately prior to the date of such disbursement with an exercise price per share equal to such weighted average sales price. Each of these future Deerfield warrants, if issued, will be dilutive to your ownership interest.

Additionally, we previously issued to Deerfield a secured convertible note, or the Deerfield Note, in the principal amount of $10.0 million. The Deerfield Note bears interest at 9.75% per annum. Deerfield may convert all or any portion of the outstanding principal and any accrued but unpaid interest on the Deerfield Note into shares of our Series D redeemable convertible preferred stock at a conversion price of $0.78 per share. According to the terms of the Deerfield Note, in no event may Deerfield convert the Deerfield Note to the extent such conversion would result in Deerfield beneficially owning more than 9.985% of the then issued and outstanding shares of our common stock. This conversion limitation may not be waived and any purported conversion that is inconsistent with this conversion limitation will be null and void. This conversion limitation will not apply to any conversion made immediately prior to a change of control transaction. If Deerfield is only able to convert the Deerfield

Note into a limited number of shares due to this conversion limitation, the Deerfield Note could subsequently become convertible into the remainder of the shares as a result of a variety of events. This could occur, for example, if we issue more shares or Deerfield sells some of its existing shares. Without regard to this conversion limitation, upon the consummation of this offering, the Deerfield Note will become convertible into 13,445,906 shares of our common stock, assuming a conversion date of November 29, 2014. At our option, the Deerfield Note will convert into shares of our common stock upon the occurrence prior to June 30, 2016 of either (i) the FDA's approval of an NDA for KP201 for the treatment of acute pain without requiring the performance of an efficacy study or (ii) the FDA's acceptance of an NDA for KP201 for review and our consummation of an initial public offering of our common stock at price of at least $1.25 per share with at least $25.0 million in gross proceeds to us. Following completion of this offering, the conversion price of the Deerfield Note will be adjusted downward if we issue or sell any shares of common stock, convertible securities, warrants or options at a sale or exercise price per share less than the greater of the Deerfield Note's conversion price or the closing sale price of our common stock on The NASDAQ Global Market on the last trading date immediately prior to such issuance.

If Deerfield elects to convert the Deerfield Note, or in the event that the Deerfield Note automatically converts pursuant to its terms into shares of our common stock, your ownership interest will be diluted.

Pursuant to our equity incentive plan and employee stock purchase plan, we may grant equity awards and issue additional shares of our common stock to our employees, directors and consultants, and the number of shares of our common stock reserved for future issuance under these plans will be subject to automatic annual increases in accordance with the terms of the plans. To the extent that new options are granted and exercised or we issue additional shares of common stock in the future, our stockholders may experience additional dilution, which could cause our stock price to fall.

Our substantial indebtedness, and the conditions we must satisfy in order to make further draws on our credit facility, may limit cash flow available to invest in the ongoing needs of our business.

In June 2014, we entered into the Deerfield facility, pursuant to which Deerfield agreed to loan to us up to $60.0 million, subject to specified conditions. In June 2014, we drew down $25.0 million against the facility. Under the terms of the Deerfield facility, Deerfield is obligated to provide three additional tranches in the principal amounts of $10.0 million, $12.5 million and $12.5 million, respectively, upon our request and after the satisfaction of specified conditions, including the FDA's acceptance of an NDA for KP201/APAP and, for the final two tranches, the subsequent approval for the commercial sale thereof. If these conditions do not occur, we may not be able to borrow any further tranches under the Deerfield facility, which would limit our cash flow and our ability to invest in the ongoing needs of our business.

All loans issued under the Deerfield facility bear interest at 9.75% per annum. Interest accrued on outstanding debt under the Deerfield facility is due quarterly in arrears. Upon notice to Deerfield, we may choose to have one or more of the first eight of such scheduled interest payments added to the outstanding principal amount of the debt issued under the Deerfield facility, provided that all such interest will be due on July 1, 2016. We must repay one-third of the outstanding principal amount of all debt issued under the Deerfield facility on the fourth and fifth anniversaries of the Deerfield facility. We are then obligated to repay the balance of the outstanding principal amount on February 14, 2020. If we are required to pay outstanding amounts due under the Deerfield facility prior to maturity or otherwise incur unanticipated monetary obligations under the Deerfield facility, our cash flow available to invest in the ongoing needs of our business may be limited.

A significant portion of our total outstanding shares are restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. If our stockholders sell, or the market perceives that our stockholders intend to sell, substantial amounts of our common stock in the public market following this offering, the market price of our common stock could decline significantly.

Upon completion of this offering, we will have outstanding shares of common stock, assuming no conversion of outstanding convertible notes and no exercise of outstanding options or warrants. Of these shares, the shares sold in this offering and additional shares will be freely tradable, additional shares of common stock will be eligible for sale in the public market beginning 90 days after the date of this prospectus, subject to volume, manner of sale and other limitations of Rule 144 and Rule 701, and additional shares of common stock will be available for sale in the public market beginning 180 days after the date of this prospectus following the expiration of lock-up or similar agreements between substantially all of our stockholders and us or the underwriters. The representatives of the underwriters may release stockholders from their lock-up agreements with the underwriters at any time and without notice, which would allow for earlier sales of shares in the public market.

In addition, promptly following the completion of this offering, we intend to file one or more registration statements on Form S-8 registering the issuance of shares of common stock subject to options or other equity awards issued or reserved for future issuance under our equity incentive plans and employee stock purchase plan. Shares registered under these registration statements on Form S-8 will be available for sale in the public market subject to vesting arrangements and exercise of options, the lock-up or similar agreements described above and the restrictions of Rule 144 in the case of our affiliates.

Additionally, after this offering, the holders of an aggregate of shares of our common stock and shares of our common stock issuable upon the exercise of outstanding warrants, or their transferees, will have rights, subject to some conditions, to require us to file one or more registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. If we were to register the resale of these shares, they could be freely sold in the public market. If these additional shares are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

Anti-takeover provisions in our certificate of incorporation and bylaws to be in effect upon completion of this offering, as well as provisions of Delaware law and the terms of some or our contracts, might discourage, delay or prevent a change in control of our company or changes in our board of directors or management and, therefore, depress the price of our common stock.

Our certificate of incorporation and bylaws to be in effect upon completion of this offering and Delaware law contain provisions that may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares of our common stock or transactions that our stockholders might otherwise deem to be in their best interests. These provisions may also prevent or frustrate attempts by our stockholders to replace or remove members of our board of directors or our management. Therefore, these provisions could adversely affect the price of our stock. Our corporate governance documents include provisions:

- establishing a classified board of directors with staggered three-year terms so that not all members of our board of directors are elected at one time;
- providing that directors may be removed by stockholders only for cause;

- preventing the ability of our stockholders to call and bring business before special meetings and to take action by written consent in lieu of a meeting;
- requiring advance notice of stockholder proposals for business to be conducted at meetings of our stockholders and for nominations of candidates for election to our board of directors;
- permitting the board of directors to issue up to 10,000,000 shares of preferred stock with any rights, preferences and privileges they may designate;
- limiting the liability of, and providing indemnification to, our directors and officers;
- providing that vacancies may be filled by remaining directors;
- preventing cumulative voting; and
- providing for a supermajority requirement to amend our bylaws.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the General Corporation Law of the State of Delaware, which prohibits a Delaware corporation from engaging in a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder became an "interested" stockholder.

In addition, the provisions of our termination agreement with a third party and our agreements with Deerfield may discourage, delay or prevent a change in control of our company. For example, if we enter into a merger, an asset sale or any other change of control transaction, then a third party will be entitled to a low double digit percentage of the price being paid to us and our stockholders in such transaction which is attributable to the value of KP415. Pursuant to the Deerfield facility, we may not enter into any major transaction without the prior approval of Deerfield, including a merger, asset sale or change of control transaction, and Deerfield has the option to demand repayment of all outstanding principal, and any unpaid interest accrued thereon, of all notes previously issued under the Deerfield facility immediately prior to consummation of such event. Further, under each warrant issued pursuant to the Deerfield facility, Deerfield has the right to demand that we redeem the warrant for a cash amount equal to the Black-Scholes value of a portion of the warrant upon the occurrence of specified events, including a merger, an asset sale or any other change of control transaction.

Any provision of our certificate of incorporation, bylaws or Delaware law or any term of our contracts that has the effect of discouraging, delaying or preventing a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock and could also affect the price that some investors are willing to pay for our common stock.

Our certificate of incorporation to be in effect upon completion of this offering will provide that the Court of Chancery of the State of Delaware will be the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or other employees.

Our certificate of incorporation to be in effect upon completion of this offering provides that the Court of Chancery of the State of Delaware is the sole and exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a breach of fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, any action asserting a claim against us arising pursuant to any provisions of the Delaware General Corporation Law, our certificate of incorporation or our bylaws to be in effect upon completion of this offering, or any action asserting a claim against us that is governed by the internal affairs doctrine. The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. If a court were to find the choice of forum provision contained in our certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions.

Concentration of ownership of our common stock among our existing executive officers, directors and principal stockholders may prevent new investors from influencing significant corporate decisions.

Upon completion of this offering, our executive officers, directors and current beneficial owners of 5% or more of our common stock and their respective affiliates will, in the aggregate, beneficially own % of our outstanding common stock. As a result, these persons, acting together, would be able to significantly influence all matters requiring stockholder approval, including the election and removal of directors, any merger, consolidation, sale of all or substantially all of our assets or other significant corporate transactions.

Some of these persons or entities may have interests different than yours. For example, because many of these stockholders purchased their shares at prices substantially below the price at which shares are being sold in this offering and have held their shares for a longer period, they may be more interested in our sale to an acquirer than other investors, or they may want us to pursue strategies that deviate from the interests of other stockholders.

We are an "emerging growth company" and as a result of the reduced disclosure and governance requirements applicable to emerging growth companies, our common stock may be less attractive to investors.

We are an "emerging growth company" as defined in the JOBS Act and we intend to take advantage of some of the exemptions from reporting requirements that are applicable to other public companies that are not emerging growth companies, including:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation; and
- not being required to hold a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. We may take advantage of these reporting exemptions until we are no longer an emerging growth company. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of this offering, (b) in which we have total annual gross revenue of at least $1.0 billion or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30th and (2) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-year period.

Under Section 107(b) of the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

We might not be able to utilize a significant portion of our net operating loss carryforwards, which could adversely affect our profitability.

As of December 31, 2013, we had federal net operating loss carryforwards of $22.6 million, due to prior period losses, which if not utilized will begin to expire in 2027. These net operating loss carryforwards could expire unused and be unavailable to offset future income tax liabilities, which could adversely affect our profitability. In addition, under Section 382 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an ‘‘ownership change,’’ which is generally defined as a greater than 50% change, by value, in its equity ownership over a three-year period, the corporation’s ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes to offset its post-change income may be limited. We have not determined if we have experienced Section 382 ownership changes in the past and if a portion of our net operating loss carryforwards are subject to an annual limitation under Section 382. In addition, we may experience ownership changes in the future as a result of subsequent shifts in our stock ownership, including this offering. If we determine that an ownership change has occurred and our ability to use our historical net operating loss carryforwards is materially limited, it would harm our future operating results by increasing our future tax obligations.

If we fail to maintain proper and effective internal controls, our ability to produce accurate financial statements on a timely basis could be impaired.

After the completion of this offering, we will be subject to the reporting requirements of the Securities Exchange Act of 1934, the Sarbanes-Oxley Act and the rules and regulations of the stock market on which our common stock is listed. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. Commencing with our fiscal year ending December 31, 2015, we must perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal controls over financial reporting in our Form 10-K filing for that year, as required by Section 404 of the Sarbanes-Oxley Act. This will require that we incur substantial additional professional fees and internal costs to expand our accounting and finance functions and that we expend significant management efforts. Prior to this offering, we have never been required to test our internal controls within a specified period, and, as a result, we may experience difficulty in meeting these reporting requirements in a timely manner.

We may discover weaknesses in our system of internal financial and accounting controls and procedures that could result in a material misstatement of our financial statements. Our internal control over financial reporting will not prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system’s objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

If we are not able to comply with the requirements of Section 404 of the Sarbanes-Oxley Act in a timely manner, or if we are unable to maintain proper and effective internal controls, we may not be able to produce timely and accurate financial statements. If that were to happen, the market price of our stock could decline and we could be subject to sanctions or investigations by the stock exchange on which our common stock is listed, the Securities and Exchange Commission, or the SEC, or other regulatory authorities.

We will have broad discretion in the use of proceeds from this offering and may invest or spend the proceeds in ways with which you do not agree and in ways that may not increase the value of your investment.

We will have broad discretion over the use of proceeds from this offering. You may not agree with our decisions, and our use of the proceeds may not yield any return on your investment. We expect to use the net proceeds to us from this offering to complete our planned clinical trials and seek regulatory approval of KP201/APAP, to fund the research and development of the other preclinical NME prodrug product candidates in our pipeline, and for working capital and general corporate purposes. Our failure to apply the net proceeds of this offering effectively could compromise our ability to pursue our growth strategy and we might not be able to yield a significant return, if any, on our investment of these net proceeds. You will not have the opportunity to influence our decisions on how to use our net proceeds from this offering.

Because we do not anticipate paying any cash dividends on our common stock in the foreseeable future, capital appreciation, if any, will be your sole source of gains and you may never receive a return on your investment.

You should not rely on an investment in our common stock to provide dividend income. We have not declared or paid cash dividends on our common stock to date. We currently intend to retain our future earnings, if any, to fund the development and growth of our business. In addition, the terms of the Deerfield facility, and any future debt agreements may, preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future. Investors seeking cash dividends should not purchase our common stock.

We will incur increased costs and demands upon management as a result of being a public company.

As a public company listed in the United States, we will incur significant additional legal, accounting and other costs. These additional costs could negatively affect our financial results. In addition, changing laws, regulations and standards relating to corporate governance and public disclosure, including regulations implemented by the SEC and The NASDAQ Stock Market, may increase legal and financial compliance costs and make some activities more time consuming. These laws, regulations and standards are subject to varying interpretations and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If, notwithstanding our efforts to comply with new laws, regulations and standards, we fail to comply, regulatory authorities may initiate legal proceedings against us.

Failure to comply with these rules might also make it more difficult for us to obtain some types of insurance, including director and officer liability insurance, and we might be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, on committees of our board of directors or as members of senior management.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. The forward-looking statements are contained principally in the sections entitled “Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business” but are also contained elsewhere in this prospectus. In some cases, you can identify forward-looking statements by the words “may,” “might,” “will,” “could,” “would,” “should,” “expect,” “intend,” “plan,” “objective,” “anticipate,” “believe,” “estimate,” “predict,” “project,” “potential,” “continue” and “ongoing,” or the negative of these terms, or other comparable terminology intended to identify statements about the future. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus, we caution you that these statements are based on a combination of facts and factors currently known by us and our expectations of the future, about which we cannot be certain. Forward-looking statements include statements about:

- our plans to develop and commercialize our product candidates;
- our planned clinical trials for KP201/APAP and our other NME prodrug product candidates;
- the timing of the availability of data from our clinical trials;
- the timing of and our ability to obtain and maintain regulatory approvals for our product candidates, including expectations about our ability to use the 505(b)(2) NDA pathway and expedited FDA review and the timing of DEA scheduling;
- the clinical utility of our product candidates;
- our commercialization, marketing and manufacturing capabilities and strategy;
- our intellectual property position;
- our ability to identify additional product candidates with significant commercial potential that are consistent with our commercial objectives; and
- our estimates regarding future revenue, expenses and needs for additional financing.

You should refer to the “Risk Factors” section of this prospectus for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

MARKET AND INDUSTRY DATA

This prospectus includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. Any information in this prospectus provided by IMS Health Incorporated, or IMS, is an estimate derived from the use of information under license from the following IMS Health information service: IMS National Sales Perspectives and NPA Audits, in each case, for the period January 2011 to September 2014. IMS expressly reserves all rights, including rights of copying, distribution and republication.

USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of shares of our common stock in this offering will be approximately $ million, or approximately $ million if the underwriters exercise their option to purchase additional shares in full, based upon an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Each $1.00 increase or decrease in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease the net proceeds to us from this offering by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. We may also increase or decrease the number of shares we are offering. Each increase or decrease of 1.0 million in the number of shares we are offering would increase or decrease the net proceeds to us from this offering by $ million, assuming the assumed initial public offering price stays the same.

We currently estimate that we will use the net proceeds from this offering, together with our existing cash and cash equivalents, as follows:

- approximately $ million to complete our planned clinical trials and seek regulatory approval of KP201/APAP;
- approximately $ million to fund continued research and development of KP511/ER, KP606/ER, KP415 and our other NME prodrug product candidates; and
- the remainder for working capital and other general corporate purposes.

In addition, we may be required to pay 1.5% of the proceeds of this offering and proceeds from the Deerfield transaction to DFN. See “Business—Legal Proceedings” for additional information regarding this potential payment.

This expected use of net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development, the status of and results from clinical trials, as well as any collaborations that we may enter into with third parties for our product candidates, and any unforeseen cash needs.

As a result, our management will have broad discretion in the application of the net proceeds from this offering, and investors will be relying on the judgment of our management regarding the application of the net proceeds of this offering. Pending these uses, we plan to invest these net proceeds in short-term, interest bearing obligations, certificates of deposit or direct or guaranteed obligations of the United States.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock. We anticipate that we will retain all of our future earnings, if any, for use in the operation and expansion of our business and do not anticipate paying cash dividends in the foreseeable future. The terms of the Deerfield facility limit our ability to pay dividends.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of September 30, 2014:

- on an actual basis;
- on a pro forma basis to give effect to:
  - the conversion or reclassification of all outstanding shares of our redeemable convertible preferred stock into an aggregate of 41,737,048 shares of our common stock, which will occur automatically upon the closing of this offering;
  - the conversion of outstanding warrants to purchase shares of redeemable convertible preferred stock into warrants to purchase common stock upon the closing of this offering; and
  - the filing of our amended and restated certificate of incorporation immediately following the closing of this offering; and
- on a pro forma as adjusted basis to give further effect to our sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The following information is illustrative only of our cash and cash equivalents and capitalization following the completion of this offering and will change based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this table together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and the related notes appearing elsewhere in this prospectus.

	As of September 30, 2014		
	Actual	Pro Forma	Pro Forma As Adjusted
Cash and cash equivalents	$ 19,022,563	$ 19,022,563	$
Convertible notes, net of discount	$ 7,077,966	$ 7,077,966	$
Term notes, net of discount	10,616,950	10,616,950	
Derivative and warrant liability	12,744,802	12,744,802	
Redeemable convertible preferred stock:			
Series A redeemable convertible preferred stock, $0.0001 par value; 9,705,000 shares authorized, 9,704,214 shares issued and outstanding, actual; no shares designated, issued or outstanding, pro forma and pro forma as adjusted	3,342,849	–	
Series B redeemable convertible preferred stock, $0.0001 par value; 6,220,000 shares authorized, 6,220,000 shares issued and outstanding, actual; no shares designated, issued or outstanding, pro forma and pro forma as adjusted	3,312,465	–	
Series C redeemable convertible preferred stock, $0.0001 par value; 18,558,000 shares authorized, 18,557,408 shares issued and outstanding, actual; no shares designated, issued or outstanding, pro forma and pro forma as adjusted	11,892,066	–	
Series D redeemable convertible preferred stock, $0.0001 par value; 75,000,000 shares authorized, 7,255,425 shares issued and outstanding, actual; no shares designated, issued or outstanding, pro forma and pro forma as adjusted	5,659,232	–	
Stockholders' (deficit) equity:			
Common stock, $0.0001 par value; 140,000,000 shares authorized, 17,857,849 shares issued and outstanding, actual; 250,000,000 shares authorized, 59,594,897 shares issued and outstanding, pro forma; 250,000,000 shares authorized, shares issued and outstanding, pro forma as adjusted	1,786	5,960	
Preferred stock, $0.0001 par value; no shares authorized, issued or outstanding, actual; 10,000,000 shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted	–	–	
Additional paid-in-capital	1,605,681	25,808,119	
Accumulated deficit	(38,320,788)	(38,320,788)	
Total stockholders' (deficit) equity	(36,713,321)	(12,506,709)	
Total capitalization	$ 17,933,009	$ 17,933,009	$

Each $1.00 increase or decrease in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease the pro forma as adjusted amount of each of cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. Each increase or decrease of 1.0 million in the number of shares we are offering would increase or decrease the pro forma as adjusted amount of each of cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by $ million, assuming that the assumed initial public offering price stays the same.

The number of shares of common stock outstanding in the table above does not include:

- 2,964,000 shares of our common stock issuable upon the exercise of stock options outstanding under our existing incentive stock plan as of September 30, 2014, at a weighted average exercise price of $0.72 per share;
- 19,973,306 shares of our common stock issuable upon exercise of warrants outstanding as of September 30, 2014, at a weighted average exercise price of $0.76 per share;
- 13,233,885 shares of our common stock issuable upon conversion of principal and accrued interest underlying a convertible note outstanding as of September 30, 2014, assuming a conversion date of September 30, 2014; and
- 17,000,000 shares of our common stock reserved for future issuance under our 2014 equity incentive plan, which will become effective upon completion of this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan.

DILUTION

If you invest in our common stock in this offering, your interest will be diluted to the extent of the difference between the initial public offering price per share and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering. Net tangible book value per share is determined by dividing our total tangible assets less total liabilities and redeemable convertible preferred stock by the number of outstanding shares of our common stock.

As of September 30, 2014, we had a net tangible book deficit of $(36.7) million, or $(2.06) per share of common stock. On a pro forma basis, after giving effect to the conversion or reclassification of the outstanding shares of our redeemable convertible preferred stock into 41,737,048 shares of our common stock upon the closing of this offering and the conversion of outstanding warrants to purchase shares of redeemable convertible preferred stock into warrants to purchase common stock upon the closing of this offering, our pro forma net tangible book deficit would have been $(12.5) million, or $(0.21) per share of common stock.

After giving effect to the issuance and sale of shares of our common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of September 30, 2014 would have been $ million, or $ per share of common stock. This represents an immediate increase in the pro forma net tangible book value of $ per share to existing stockholders, and an immediate dilution in the pro forma net tangible book value of $ per share to investors purchasing shares of our common stock in this offering. The following table illustrates this per share dilution:

Assumed initial public offering price per share		$
Actual net tangible book deficit per share as of September 30, 2014	$ (2.06)	
Increase per share attributable to assumed conversion or reclassification of redeemable convertible preferred stock	1.85	
Pro forma net tangible book value per share before this offering	(0.21)	
Increase in pro forma net tangible book value per share attributable to this offering		
Pro forma as adjusted net tangible book value per share after this offering		
Dilution per share to investors participating in this offering		$

The dilution information discussed above is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing. Each $1.00 increase or decrease in the assumed initial public offering price of $ per share would increase or decrease our pro forma as adjusted net tangible book value by $ million, or $ per share, and the dilution per share to investors participating in this offering by $ per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. Each increase or decrease of 1.0 million shares in the number of shares offered by us would increase or decrease our pro forma as adjusted net tangible book value per share after this offering by $ per share and decrease or increase the dilution to investors participating in this offering by $ per share, assuming that the assumed initial public offering price remains the same.

If the underwriters exercise their option in full to purchase additional shares of common stock in this offering, the pro forma as adjusted net tangible book value per share after the offering

would be $ per share, the increase in the pro forma net tangible book value per share to existing stockholders would be $ per share and the dilution to new investors purchasing common stock in this offering would be $ per share.

The following table sets forth as of September 30, 2014, on the pro forma basis described above, the differences between the number of shares of common stock purchased from us, the total consideration paid and the weighted average price per share paid by existing stockholders and by investors purchasing shares of our common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us:

	Shares purchased		Total consideration		Weighted average price per share
	Number	Percent	Amount	Percent	
Existing stockholders		%	$	%	$
New investors					
Total		100%	$	100%	

Each $1.00 increase or decrease in the assumed initial public offering price of $ per share would increase or decrease the total consideration paid by new investors by $ million, and increase or decrease the percent of total consideration paid by new investors by percentage points, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same.

The table above also excludes:

- 2,964,000 shares of our common stock issuable upon the exercise of stock options outstanding under our existing incentive stock plan as of September 30, 2014, at a weighted average exercise price of $0.72 per share;
- 19,973,306 shares of our common stock issuable upon exercise of warrants outstanding as of September 30, 2014, at a weighted average exercise price of $0.76 per share;
- 13,233,885 shares of our common stock issuable upon conversion of principal and accrued interest underlying a convertible note outstanding as of September 30, 2014, assuming a conversion date of September 30, 2014; and
- 17,000,000 shares of our common stock reserved for future issuance under our 2014 equity incentive plan, which will become effective upon completion of this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan.

To the extent that options or warrants are exercised, new options are issued under our equity incentive plans or we issue additional shares of common stock in the future, there will be further dilution to investors participating in this offering. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

SELECTED FINANCIAL DATA

The following tables set forth our selected financial data for the periods indicated. The following selected statement of operations data for the years ended December 31, 2012 and 2013 and the selected balance sheet data as of December 31, 2012 and 2013 are derived from our audited financial statements appearing elsewhere in this prospectus. The selected statement of operations data for the nine-month periods ended September 30, 2013 and 2014 and the selected balance sheet data as of September 30, 2014 are derived from unaudited condensed financial statements appearing elsewhere in this prospectus. The data should be read together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and in conjunction with the financial statements, related notes and other financial information included elsewhere in this prospectus.

The unaudited condensed financial statements include all adjustments, consisting of normal recurring accruals, that management considers necessary for a fair presentation of the financial position and the results of operations for these periods. Our historical results are not necessarily indicative of the results to be expected in the future, and our operating results for the nine months ended September 30, 2014 are not necessarily indicative of the results that may be expected for the entire year ending December 31, 2014.

	Year Ended December 31,		Nine Months Ended September 30,	
	2012	2013	2013	2014
Statement of operations data:				
Revenue	$ –	$ –	$ –	$ –
Operating expenses:				
Research and development	2,994,726	3,366,932	2,573,028	6,005,818
General and administrative	2,342,343	1,350,971	947,226	2,949,339
Gain on sale of assets	(5,066,093)	–	–	–
Total operating expenses	270,976	4,717,903	3,520,254	8,955,157
Loss from operations	(270,976)	(4,717,903)	(3,520,254)	(8,955,157)
Other income (expense)	163,332	(528,086)	120,258	(3,708,684)
Loss before income taxes	(107,644)	(5,245,989)	(3,399,996)	(12,663,841)
Income tax benefit	37,228	19,544	14,550	48,652
Net loss	$ (70,416)	$ (5,226,445)	$ (3,385,446)	$ (12,615,189)
Net loss per share:				
Basic and diluted	$ (0.00)	$ (0.29)	$ (0.19)	$ (0.71)
Basic and diluted, pro forma(1)		$ (0.10)		$ (0.22)
Weighted average common shares outstanding:				
Basic and diluted	17,843,967	17,857,849	17,857,849	17,857,849
Basic and diluted, pro forma(1)		54,325,603		58,365,253

(1) See Note 15 to our Financial Statements and Note 10 to our Unaudited Condensed Financial Statements included elsewhere in this prospectus for an explanation of the method used to calculate the pro forma basic and diluted net loss per share and the pro forma basic and diluted weighted average common shares outstanding.

	As of December 31, 2012	As of December 31, 2013	As of September 30, 2014
Balance sheet data:			
Cash and cash equivalents	$ 2,541,687	$ 1,968,632	$ 19,022,563
Total assets	2,932,088	2,428,984	21,531,353
Convertible notes	–	3,846,000	7,077,966
Term notes, net of discount	–	–	10,616,950
Derivative and warrant liability	2,390,608	2,813,260	12,744,802
Total liabilities	3,559,305	8,148,901	34,038,062
Redeemable convertible preferred stock	18,547,380	18,547,380	24,206,612
Total stockholders' deficit	(19,174,597)	(24,267,297)	(36,713,321)

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with our financial statements and related notes thereto included elsewhere in this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the "Risk Factors" section of this prospectus, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a clinical-stage specialty pharmaceutical company engaged in the discovery and development of proprietary prodrugs that we believe will be improved versions of widely prescribed, approved drugs. We employ our LAT platform technology to create our prodrugs, each of which is an NME and therefore may be eligible for composition-of-matter patent protection. Our most advanced product candidate is KP201/APAP, which we are developing as an IR product candidate for the treatment of acute moderate to moderately severe pain. We intend to submit a 505(b)(2) NDA for KP201/APAP to the FDA in the third quarter of 2015. We are also building a pipeline of additional NME prodrug product candidates that target large market opportunities in pain, ADHD and other central nervous system indications. We own worldwide commercial rights for all of our product candidates, including KP201/APAP, except that Shire has a right of first refusal to acquire, license or commercialize KP415.

We are a development stage company and have not generated any revenue. We have incurred losses since our inception and, as of September 30, 2014, had an accumulated deficit of $38.3 million. Our net losses for the nine months ended September 30, 2013 and 2014 were $3.4 million and $12.6 million, respectively. Our net losses for the years ended December 31, 2012 and 2013 were $0.1 million and $5.2 million, respectively.

We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future, which may fluctuate significantly from quarter-to-quarter and year-to-year. We anticipate that our expenses will increase substantially as we:

- continue our ongoing studies and clinical trials evaluating, among other things, KP201/APAP's abuse-deterrent features and its potential to preserve GI motility as compared to hydrocodone/APAP combination products as a surrogate for KP201/APAP's ability to reduce the incidence of OIC;
- seek regulatory approvals for KP201/APAP and for any other product candidates that successfully complete clinical trials;
- continue research and preclinical development and initiate clinical trials of our other product candidates;
- seek to discover and develop additional product candidates;
- ultimately establish a commercialization infrastructure and scale up external manufacturing and distribution capabilities to commercialize any product candidates for which we may obtain regulatory approval;
- adapt our regulatory compliance efforts to incorporate requirements applicable to marketed products;
- maintain, expand and protect our intellectual property portfolio;
- hire additional clinical, manufacturing and scientific personnel;

- add operational, financial and management information systems and personnel, including personnel to support our prodrug development and planned future commercialization efforts; and
- incur additional legal, accounting and other expenses in operating as a public company.

Our commercial revenue, if any, will be derived from sales of NME prodrug products that we do not expect to be commercially available for several years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all. To the extent that we raise additional capital through the sale of equity or convertible debt securities, or exercise our right to borrow additional tranches under the Deerfield facility, the terms of these securities or this debt may restrict our ability to operate. If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may be required to relinquish valuable rights. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or altogether cease our research and development programs or future commercialization efforts.

Third-Party Agreements

In November 2009, we entered into a supply agreement with Johnson Matthey Inc., or JMI, pursuant to which JMI has agreed to supply us with all of the KP201 necessary for clinical trials and commercial sale for a price equal to JMI's manufacturing cost and to provide process optimization and development services for KP201. In exchange, we issued shares of our common stock to JMI, provided that the commercial supply arrangement for KP201 would be exclusive to them in the United States and agreed to pay them royalties on the net sales of KP201/APAP, if approved by the FDA. The percentage royalty rate ranges from the high teens at low volumes to the mid-single digits at higher volumes.

We are responsible for all costs of any KP201 manufactured during a specified validation process for KP201. After completion of the validation process, but prior to the commercial launch of KP201, JMI will manufacture the registration batches of KP201 at a price to be negotiated. Failure to agree upon this pricing would result in JMI supplying the registration batches to us free of charge and we would pay JMI an additional royalty payment on such batches. The percentage royalty rate ranges from the low teens at low volumes to the low single digits at higher volumes. After the commercial launch of KP201/APAP, JMI will manufacture and supply KP201 at a price equal to JMI's fully allocated manufacturing cost.

We must purchase all of our U.S. KP201 needs from JMI and JMI cannot supply KP201 to other companies. After the commercial launch of KP201, JMI is required to identify a secondary manufacturing site and qualify and validate that site for the production of KP201.

The term of the supply agreement extends as long as we hold a valid and enforceable patent for KP201 or until the tenth anniversary of KP201's commercial launch, whichever date is later. Upon the expiration of such term, the agreement will automatically renew for a period of two years unless either party provides 12 months prior notice of its intent not to renew.

Under our March 2012 asset purchase agreement with Shire, Shire has a right of first refusal to acquire, license or commercialize KP415.

Under our March 2012 termination agreement with a third party, this third party has the right to receive an amount equal to a low double digit percentage of any value generated by KP415, and any product candidates arising therefrom, including royalty payments on any license of KP415, the sale of KP415 to a third party, the commercialization of KP415 and the portion of any consideration that is attributable to the value of KP415 and paid to us or our stockholders in a change of control transaction.

Components of our Results of Operations

Revenue

To date, we have not generated any revenue. We do not expect to generate revenue for at least the next few years. If we fail to complete the development of our product candidates in a timely manner or fail to obtain their regulatory approval, our ability to generate future revenue would be compromised.

Operating Expenses

We classify our operating expenses into two categories: research and development and general and administrative expenses. Salaries and personnel-related costs, including benefits, bonuses and stock-based compensation expense, comprise a significant component of each of these expense categories. We allocate expenses associated with our facilities, information technology costs and depreciation and amortization between these two categories based on employee headcount and the nature of work performed by each employee.

Research and Development Expense

Research and development expense consists of expenses incurred while performing research and development activities to discover and develop potential product candidates. This includes conducting preclinical studies and clinical trials, manufacturing development efforts and activities related to regulatory filings for product candidates. We recognize research and development expenses as they are incurred. Our research and development expense primarily consists of:

- salaries and personnel-related costs, including benefits and any stock-based compensation, for our scientific personnel performing research and development activities;
- costs related to executing preclinical studies and clinical trials;
- fees paid to consultants and other third parties who support our product candidate development;
- other costs in seeking regulatory approval of our products; and
- allocated facility-related costs and overhead.

We plan to increase our research and development expense for the foreseeable future as we continue our effort to develop KP201/APAP and to further advance the development of our other product candidates, subject to the availability of additional funding.

The successful development of product candidates is highly uncertain. At this time, we cannot reasonably estimate the nature, timing or costs required to complete the remaining development of any product candidates. This is due to the numerous risks and uncertainties associated with the development of product candidates.

General and Administrative Expense

General and administrative expense consists primarily of salaries and personnel-related costs, including employee benefits and any stock-based compensation, for employees performing functions other than research and development. This includes personnel in executive, finance, human resources and administrative support functions. Other general and administrative expenses include facility-related costs not otherwise allocated to research and development expense, professional fees for auditing, tax and legal services, expenses associated with obtaining and maintaining patents, consulting costs and costs of our information systems.

We expect that our general and administrative expense will increase as we begin to operate as a public reporting company and continue to develop and potentially commercialize KP201/APAP and our other product candidates. We believe that these increases will likely include increased costs for director and officer liability insurance, costs related to the hiring of additional personnel and increased fees for outside consultants, lawyers and accountants. We also expect to incur increased costs to comply with corporate governance, internal controls, investor relations, disclosure and similar requirements applicable to public reporting companies.

Gain on Sale of Assets

In March 2012, as a result of a litigation settlement, we sold a product candidate for the treatment of ADHD, our other amphetamine compounds and related intellectual property and patent rights to Shire for proceeds of $5.1 million. We recorded this amount as a gain on sale of assets within operating expenses during the year ended December 31, 2012.

Other Income (Expense)

Other income (expense) consists primarily of non-cash costs associated with fair value adjustments to our derivative and warrant liability and amortization of debt issuance costs and debt discount to interest expense. Other income (expense) also includes interest expense incurred on our outstanding borrowings. Additionally, during the nine months ended September 30, 2014, we recognized a gain on extinguishment of debt upon the conversion of our 2013 convertible notes. These items are unrelated to our core business and thus are recognized as other income (expense) in our statements of operations.

From 2008 through 2012, we issued warrants to purchase 4,159,777 shares of common stock to the placement agent in our private placement offerings of redeemable convertible preferred stock as payment for services. We accounted for the warrants issued in connection with the private placement offerings as a derivative liability, which is adjusted to fair value at each reporting period.

From June 2013 through October 2013, we issued $3.8 million of convertible notes together with warrants to purchase equity securities. The warrants allowed the holders to purchase shares of the same class and series of equity securities to be issued in specified future financings. In connection with the closing of the Deerfield facility in June 2014 described below, these warrants became warrants to purchase 1,079,453 shares of our Series D redeemable convertible preferred stock at a price of $0.78 per share. The fair value of the warrants at issuance was $0.4 million, and we recorded the warrant fair value as a debt discount. We concluded that the warrants qualified as a derivative liability and accordingly that the fair value of the warrants should be adjusted at each reporting period. We also concluded that embedded features in the convertible notes should be valued separately from the notes and adjusted to fair value at each reporting period. The amortization of the debt discount is recorded in interest expense and any change in the derivative and warrant liability is recorded in fair value adjustment.

On June 2, 2014, we entered into a $60.0 million multi-tranche credit facility agreement with Deerfield. At the time we entered into the Deerfield facility, we borrowed the first tranche, which consisted of a $15.0 million term note and a $10.0 million senior secured convertible note, both of which bear interest at 9.75% per annum. When we borrowed the first tranche, we issued to Deerfield a warrant to purchase 14,423,076 shares of Series D redeemable convertible preferred stock at an exercise price of $0.78 per share. This warrant is exercisable until June 2, 2024. The fair value of the warrant was accounted for as a debt discount and we are amortizing it over the stated term of the Deerfield facility. We concluded that the warrant qualified as a derivative liability and accordingly that the fair value of the warrant should be adjusted at each reporting period. We also concluded that an embedded feature in the warrant should be valued separately and adjusted to fair value at each reporting period. The amortization of debt issuance costs and debt discount is recorded in interest expense and the change in the derivative and warrant liability is recorded in fair value adjustment.

Income Tax Benefit

Income tax benefit consists of refundable state income tax credits. To date, we have not been required to pay U.S. federal or state income taxes because we have not generated taxable income. We have received state income tax credits related to our qualified research activities in Iowa.

Results of Operations

Comparison of Nine Months Ended September 30, 2013 and 2014

	Nine Months Ended September 30, 2013	2014	Period-to-Period Change
Revenue	$ –	$ –	$ –
Operating expenses:			
Research and development	2,573,028	6,005,818	3,432,790
General and administrative	947,226	2,949,339	2,002,113
Total operating expenses	3,520,254	8,955,157	5,434,903
Loss from operations	(3,520,254)	(8,955,157)	(5,434,903)
Other income (expense):			
Gain on extinguishment of debt	–	1,900,000	1,900,000
Interest expense	(1,013,235)	(1,611,005)	(597,770)
Fair value adjustment	1,091,012	(4,001,542)	(5,092,554)
Interest and other income	42,481	3,863	(38,618)
Total other income (expense)	120,258	(3,708,684)	(3,828,942)
Loss before income taxes	(3,399,996)	(12,663,841)	(9,263,845)
Income tax benefit	14,550	48,652	34,102
Net loss	$(3,385,446)	$(12,615,189)	$(9,229,743)

Research and Development

Research and development expense increased by $3.4 million, from $2.6 million for the nine months ended September 30, 2013 to $6.0 million for the nine months ended September 30, 2014. This increase was primarily attributable to an increase in research and development spending on KP201/APAP, which resulted in increases of $2.8 million in contracted third-party research and development costs and $0.4 million in salaries and personnel-related costs for the nine months ended September 30, 2014.

General and Administrative

General and administrative expense increased by $2.0 million, from $1.0 million for the nine months ended September 30, 2013 to $3.0 million for the nine months ended September 30, 2014. This increase was primarily attributable to a $1.0 million increase in legal expenses associated with the Deerfield facility and patent-related and general corporate legal fees. In addition, we experienced a $0.5 million increase in salaries and personnel-related costs due to increased headcount and a $0.2 million increase in professional fees associated with our increased marketing and recruiting efforts.

Other Income (Expense)

Other income (expense) changed by $3.8 million, from income of $0.1 million for the nine months ended September 30, 2013 to expense of $3.7 million for the nine months ended September 30, 2014. This change was primarily attributable to a $5.1 million increase in the fair value adjustment related to our derivative and warrant liability. Additionally, we experienced a $0.6 million increase in interest expense, primarily related to amortization of debt issuance costs and debt discount. These changes were partially offset by a $1.9 million gain on extinguishment of debt recognized upon the conversion of our convertible notes.

Comparison of the Years Ended December 31, 2012 and 2013

	Year Ended December 31, 2012	Year Ended December 31, 2013	Period-to-Period Change
Revenue	$ –	$ –	$ –
Operating expenses:			
Research and development	2,994,726	3,366,932	372,206
General and administrative	2,342,343	1,350,971	(991,372)
Gain on sale of assets	(5,066,093)	–	5,066,093
Total operating expenses	270,976	4,717,903	4,446,927
Loss from operations	(270,976)	(4,717,903)	(4,446,927)
Other income (expense):			
Interest expense	(8,542)	(1,716,869)	(1,708,327)
Fair value adjustment	128,597	1,137,348	1,008,751
Interest and other income	43,277	51,435	8,158
Total other income (expense)	163,332	(528,086)	(691,418)
Loss before income taxes	(107,644)	(5,245,989)	(5,138,345)
Income tax benefit	37,228	19,544	(17,684)
Net loss	$ (70,416)	$ (5,226,445)	$ (5,156,029)

Research and Development

Research and development expense increased by $0.4 million, from $3.0 million for the year ended December 31, 2012 to $3.4 million for the year ended December 31, 2013. This increase was primarily attributable to a $0.8 million increase in contracted third-party research and development spending on KP201/APAP. This increase was partially offset by a $0.4 million decrease in stock-based compensation expense.

General and Administrative

General and administrative expense decreased by $1.0 million, from $2.3 million for the year ended December 31, 2012 to $1.3 million for the year ended December 31, 2013. This decrease was primarily attributable to a $1.6 million decrease in patent-related legal expenses, partially offset by an increase of $0.2 million in salaries and personnel-related costs due to increased headcount.

Other Income (Expense)

Other income (expense) changed by $0.7 million, from income of $0.2 million for the year ended December 31, 2012 to expense of $0.5 million for the year ended December 31, 2013. This change was primarily attributable to a $1.7 million increase in interest expense, predominantly related to amortization of debt issuance costs and debt discount. Additionally, we experienced a $1.0 million increase in the fair value adjustment related to our derivative and warrant liability.

Liquidity and Capital Resources

Sources of Liquidity

To date, we have funded our research and development and operating activities primarily through the issuance of $29.6 million of debt and $19.2 million of private placements of redeemable convertible preferred stock. As of September 30, 2014, we had cash and cash equivalents of $19.0 million, compared to $2.0 million as of December 31, 2013.

We have incurred losses since our inception and, as of September 30, 2014, had an accumulated deficit of $38.3 million. We anticipate that we will continue to incur losses for at least the next several

years. We expect that our research and development and general and administrative expenses will continue to increase and, as a result, we will need additional capital to fund our operations, which we may obtain through one or more equity offerings, debt financings or other third-party funding, including potential strategic alliances and licensing or collaboration arrangements.

Deerfield Facility

In June 2014, we entered into the $60.0 million multi-tranche credit facility with Deerfield. At the time we entered into the Deerfield facility, we borrowed the first tranche, which consisted of a $15.0 million term note and a $10.0 million senior secured convertible note. Under the terms of the Deerfield facility, Deerfield is obligated to provide three additional tranches in the principal amounts of $10.0 million, $12.5 million and $12.5 million, respectively, upon our request and after the satisfaction of specified conditions, including the FDA's acceptance of an NDA for KP201/APAP and, for the final two tranches, the subsequent approval for the commercial sale thereof. Deerfield's obligation to provide such disbursements terminates on June 30, 2016. All loans issued under the Deerfield facility bear interest at 9.75% per annum. Interest accrued on outstanding debt under the Deerfield facility is due quarterly in arrears. Upon notice to Deerfield, we may choose to have one or more of the first eight of such scheduled interest payments added to the outstanding principal amount of the debt issued under the Deerfield facility, provided that all such interest will be due on July 1, 2016. We must repay one-third of the outstanding principal amount of all debt issued under the Deerfield facility on the fourth and fifth anniversaries of the Deerfield facility. We are then obligated to repay the balance of the outstanding principal amount on February 14, 2020.

Prepayment of the outstanding balance is not allowed without written consent of Deerfield.

Pursuant to the Deerfield facility, we issued to Deerfield 1,923,077 shares of our Series D redeemable convertible preferred stock as consideration for the loans provided to us thereunder.

We also issued to Deerfield a warrant to purchase 14,423,076 shares of our Series D redeemable convertible preferred stock at an initial exercise price of $0.78 per share. If we exercise our option to borrow the second tranche, then we will issue to Deerfield a warrant to purchase 9,615,385 shares of our common stock at an initial exercise price of $0.78 per share. Similarly, if we borrow the third and fourth tranches, in each instance, we will issue to Deerfield a warrant exercisable for the number of shares equal to 60% of the principal amount of such disbursement divided by the volume weighted average sales price of our common stock for the 20 consecutive trading days immediately prior to the date of such disbursement with an exercise price per share equal to such weighted average sales price.

Pursuant to the Deerfield facility, we may not enter into specified transactions, including a debt financing in the aggregate value of $750,000 or more, a merger, an asset sale or any other change of control transaction or any joint venture, partnership or other profit sharing arrangement, without the prior approval of Deerfield. Additionally, if we were to enter into such a transaction, Deerfield would have the ability to demand that prior to consummation of such transaction we repay all outstanding principal and accrued interest of any notes issued under the Deerfield facility. Under each warrant issued pursuant to the Deerfield facility, Deerfield has the right to demand that we redeem the warrant for a cash amount equal to the Black-Scholes value of a portion of the warrant upon the occurrence of specified events, including a merger, an asset sale or any other change of control transaction.

The Deerfield facility also includes high yield discount obligation protections which go into effect in June 2019. After this time, if at any interest payment date our outstanding indebtedness under the Deerfield facility would qualify as an "applicable high yield discount obligation" under the Internal Revenue Code, as amended, or the Code, then we are obligated to prepay in cash on each such date the amount necessary to avoid such classification.

As of September 30, 2014, the outstanding principal balance under the Deerfield facility was $25.0 million.

Cash Flows

	Year Ended December 31,		Nine Months Ended September 30,	
	2012	2013	2013	2014
Net cash used in operating activities	$(4,434,318)	$(4,316,057)	$(2,979,910)	$ (7,710,540)
Net cash provided by (used in) investing activities	5,047,150	(45,968)	(30,959)	(14,159)
Net cash provided by financing activities	381,134	3,788,970	2,706,818	24,778,630
Net increase (decrease) in cash and cash equivalents	$ 993,966	$ (573,055)	$ (304,051)	$17,053,931

Operating Activities

For the nine months ended September 30, 2013, our net cash used in operating activities of $3.0 million consisted of a net loss of $3.4 million, primarily attributable to our spending on research and development, offset by $0.1 million in adjustments for non-cash items and $0.3 million of cash provided by changes in working capital. Adjustments for non-cash items primarily consisted of amortization of deferred financing costs and debt discount of $0.9 million and stock-based compensation expense of $0.1 million, partially offset by changes in fair value of our derivative and warrant liabilities of $1.1 million.

For the nine months ended September 30, 2014, our net cash used in operating activities of $7.7 million consisted of a net loss of $12.6 million, primarily attributable to our spending on research and development, offset by $3.9 million in adjustments for non-cash items and $1.0 million of cash provided by changes in working capital. Adjustments for non-cash items primarily consisted of changes in fair value of our derivative and warrant liabilities of $4.0 million, non-cash interest expense of $1.0 million, amortization of deferred financing costs and debt discount of $0.6 million and stock-based compensation expense of $0.2 million, partially offset by a $1.9 million gain on extinguishment of debt.

For the year ended December 31, 2012, our net cash used in operating activities of $4.4 million consisted of a net loss of $0.1 million, primarily attributable to our spending on research and development, partially offset by a gain on the sale of an asset, and $4.6 million in adjustments for non-cash items, offset by $0.3 million of cash provided by changes in working capital. Adjustments for non-cash items primarily consisted of a $5.1 million gain on the sale of an asset and changes in fair value of our derivative and warrant liabilities of $0.1 million, offset by stock-based compensation expense of $0.5 million and depreciation and amortization expense of $0.1 million.

For the year ended December 31, 2013, our net cash used in operating activities of $4.3 million consisted of a net loss of $5.2 million, primarily attributable to our spending on research and development, offset by $0.8 million in adjustments for non-cash items and $0.1 million of cash provided by changes in working capital. Adjustments for non-cash items primarily consisted of amortization of deferred financing costs and debt discount of $1.6 million, stock-based compensation expense of $0.1 million, non-cash interest expense of $0.2 million and depreciation and amortization expense of $0.1 million, offset by changes in fair value of our derivative and warrant liabilities of $1.1 million.

Investing Activities

For the nine months ended September 30, 2013, net cash used in investing activities was $31,000, which was primarily attributable to the purchase of property and equipment.

For the nine months ended September 30, 2014, net cash used in investing activities was $14,000, which was primarily attributable to the purchase of property and equipment.

For the year ended December 31, 2012, net cash provided by investing activities was $5.0 million, which primarily consisted of a gain on sale of an asset of $5.1 million.

For the year ended December 31, 2013, net cash used in investing activities was $46,000, which was primarily attributable to the purchase of property and equipment.

Financing Activities

For the nine months ended September 30, 2013, net cash provided by financing activities consisted of $2.8 million in proceeds from the issuance of convertible notes, offset by $44,000 in repayments of debt and capital leases.

For the nine months ended September 30, 2014, net cash provided by financing activities consisted of $25.0 million in proceeds from the issuance of a $15.0 million term note and a $10.0 million senior secured convertible promissory note under the Deerfield facility. These amounts were partially offset by $0.2 million in payments of redeemable convertible preferred stock issuance costs and $0.1 million in repayments of debt and capital leases.

For the year ended December 31, 2012, net cash provided by financing activities consisted of $0.5 million in net proceeds from the issuance of redeemable convertible preferred stock, partially offset by $0.1 million used to repurchase convertible preferred stock and $0.1 million in repayments of debt and capital leases.

For the year ended December 31, 2013, net cash provided by financing activities consisted of $3.8 million in proceeds from the issuance of convertible notes, partially offset by $0.1 million in repayments of debt and capital leases.

Future Funding Requirements

To date, we have not generated any revenue. We do not know when, or if, we will generate any revenue. We do not expect to generate significant revenue unless and until we obtain regulatory approval of and commercialize KP201/APAP. In addition, we expect our expenses to increase in connection with our ongoing development activities, particularly as we continue the research, development and clinical trials of, and seek regulatory approval for, product candidates. Following the closing of this offering, we expect to incur additional costs associated with operating as a public company. In addition, subject to obtaining regulatory approval of product candidates, we expect to incur significant commercialization expenses for product sales, marketing, manufacturing and distribution. We anticipate that we will need substantial additional funding in connection with our continuing operations.

Based upon our current operating plan, we believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will enable us to fund our operating expenses and capital expenditure requirements through at least the next 18 months. We intend to devote the majority of the net proceeds from this offering for clinical development and regulatory approval of KP201/APAP. We have based our estimates on assumptions that may prove to be wrong, and we may use our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development and commercialization of product candidates, we are unable to estimate the amounts of increased capital outlays and operating expenditures necessary to complete the development of product candidates.

Our future capital requirements will depend on many factors, including:

- the progress and results of our studies and clinical trials for KP201/APAP;
- the scope, progress, results and costs of preclinical development, laboratory testing and clinical trials for our other product candidates;
- the ability to obtain abuse-deterrent claims and GI motility or OIC related-language in the labels for our product candidates, including KP201/APAP;
- the number and development requirements of other product candidates that we may pursue;

- the costs, timing and outcome of regulatory review of our product candidates;
- the efforts necessary to institute post-approval regulatory compliance requirements;
- the costs and timing of future commercialization activities, including product manufacturing, marketing, sales and distribution, for any of our product candidates for which we receive marketing approval;
- the revenue, if any, received from commercial sales of our product candidates for which we receive marketing approval, which may be affected by market conditions, including obtaining coverage and adequate reimbursement of our product candidates from third-party payors, including government programs and managed care organizations, and competition within the therapeutic class to which our product candidates are assigned;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending any intellectual property-related claims; and
- the extent to which we acquire or in-license other product candidates and technologies.

Our commercial revenue, if any, will be derived from sales of NME prodrug products that we do not expect to be commercially available for several years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all. To the extent that we raise additional capital through the sale of equity or convertible debt securities, or exercise our right to borrow additional tranches under the Deerfield facility, the terms of these securities or this debt may restrict our ability to operate. The Deerfield facility includes, and any future debt financing and equity financing, if available, may involve agreements that include, covenants limiting and restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, entering into profit-sharing or other arrangements or declaring dividends. If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may be required to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us.

Contractual Obligations, Commitments and Contingencies

Our principal commitments consist of obligations under our outstanding debt obligations, non-cancelable leases for our office space and certain equipment, capital leases for various equipment and vendor contracts to provide research services. The following table summarizes these contractual obligations at September 30, 2014:

Contractual Obligations	Total	Less Than 1 Year	1 to 3 Years	4 to 5 Years	More Than 5 Years
Debt:					
Principal payments	$25,000,000	$ –	$ –	$16,666,667	$8,333,333
Interest payments	12,322,917	812,500	7,312,500	3,927,083	270,833
Operating lease commitments	187,296	23,412	163,884	–	–
Capital lease obligations	66,228	31,789	34,439	–	–
Total contractual obligations	$37,576,441	$867,701	$7,510,823	$20,593,750	$8,604,167

The contractual obligations table does not include any potential royalty payments we may be required to make under our supply agreement because the amount and timing of when these payments will actually be made is uncertain and the payments are contingent upon the initiation and completion of future activities.

Off-Balance Sheet Arrangements

During the periods presented, we did not have, nor do we currently have, any off-balance sheet arrangements as defined under SEC rules.

Critical Accounting Policies and Significant Judgments and Estimates

This management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which we have prepared in accordance with accounting principles generally accepted in the United States. The preparation of our financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of our financial statements, as well as the reported revenues and expenses during the reported periods. We evaluate these estimates and judgments on an ongoing basis. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 1 to our audited financial statements appearing elsewhere in this prospectus, we believe that the following accounting policies are critical to the process of making significant judgments and estimates in the preparation of our financial statements and understanding and evaluating our reported financial results.

Stock-Based Compensation

We record the fair value of stock options issued as of the grant date as compensation expense. We recognize compensation expense over the requisite service period, which is equal to the vesting period. Stock-based compensation expense has been reported in our statements of operations as follows:

	Year Ended December 31,		Nine Months Ended September 30,	
	2012	2013	2013	2014
Research and development	$459,738	$ 29,296	$ 22,255	$ 36,981
General and administrative	8,253	104,449	86,846	132,184
	$467,991	$133,745	$109,101	$169,165

Determination of the Fair Value of Stock-based Compensation Grants

We calculate the fair value of stock-based compensation arrangements using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model requires the use of subjective assumptions, including the expected volatility of our common stock, the assumed dividend yield, the expected term of our stock options, the risk-free interest rate for a period that approximates the expected term of our stock options and the fair value of the underlying common stock on the date of grant. In applying these assumptions, we considered the following factors:

- we do not have sufficient history to estimate the volatility of our common stock. We calculate expected volatility based on reported data for selected similar publicly traded companies for which the historical information is available. For the purpose of identifying peer companies, we consider characteristics such as industry, length of trading history, similar vesting terms and in-the-money option status. We plan to continue to use the guideline peer group volatility information until the historical volatility of our common stock is sufficient to measure expected volatility for future option grants;
- the assumed dividend yield is based on our expectation of not paying dividends for the foreseeable future;

- we determine the average expected life of “plain vanilla” stock options based on the simplified method in accordance with SEC Staff Accounting Bulletin Nos. 107 and 110, as our common stock to date has not been publicly traded. We expect to use the simplified method until we have sufficient historical exercise data to provide a reasonable basis upon which to estimate expected term. For options that are not considered “plain vanilla,” such as those with exercise prices in excess of the fair market value of the underlying stock, we use an expected life equal to the contractual term of the option;
- we determine the risk-free interest rate by reference to implied yields available from U.S. Treasury securities with a remaining term equal to the expected life assumed at the date of grant; and
- we estimate forfeitures based on our historical analysis of actual stock option forfeitures.

We account for stock-based compensation arrangements with directors and consultants which contain only service conditions for vesting using a fair value approach. The fair value of these options is measured using the Black-Scholes option pricing model reflecting the same assumptions as applied to employee options in each of the reported periods, other than the expected life, which is assumed to be the remaining contractual life of the option. For director and consultant options subject to vesting, the compensation costs of these arrangements are subject to re-measurement over the vesting period.

Employee Stock Options

The following summarizes the assumptions used for estimating the fair value of stock options granted to employees for the periods indicated:

	Year Ended December 31,		Nine Months Ended September 30,	
	2012	2013	2013	2014
Risk-free interest rate	0.65% - 0.97%	0.52% - 2.80%	0.52% - 0.91%	2.50% - 2.70%
Expected term (in years)	3.95 - 6.00	4.04 - 10.00	4.04 - 5.50	7.00 - 10.00
Expected volatility	63.13% - 68.22%	58.55% - 92.00%	58.55% - 67.15%	90.00% - 95.00%
Expected dividend yield	0%	0%	0%	0%

Based upon an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, the aggregate intrinsic value of outstanding options to purchase shares of our common stock as of September 30, 2014 was $ million, of which $ million related to vested options and $ million to unvested options.

Determination of Exercise Price of Stock Options and the Fair Value of Common Stock on Grant Dates

The following table summarizes by grant date the number of shares of common stock subject to stock options granted between January 1, 2013 and September 30, 2014, as well as the associated per-share exercise price and the estimated fair value per share of our common stock on the grant date:

Grant Date	Number of Shares Underlying Options Granted	Exercise Price per Share	Estimated Fair Value Per Share
January 13, 2013	15,000	$ 0.78	$ 0.78
April 4, 2013	25,000	0.78	0.78
July 10, 2013	600,000	0.78	0.48
January 1, 2014	110,000	0.78	0.52
June 2, 2014	100,000	0.78	0.73
June 9, 2014	5,000	0.78	0.73
June 18,2014	48,000	0.78	0.73
July 9, 2014	579,000	0.78	0.73

In setting the exercise price of the stock options at each of the grant dates, management and the board of directors used the $0.78 per-share pricing of our latest private placement of Series C redeemable convertible preferred stock in 2012 without taking into consideration any of the rights and preferences of our redeemable convertible preferred stock over our common stock.

In connection with the preparation of the financial statements necessary for the filing of the registration statement of which this prospectus forms a part, in the fall of 2014 we undertook third-party valuations of the fair value of our common stock as of July 10, 2013, December 31, 2013 and June 2, 2014 for financial reporting purposes. The estimated fair value per share of our common stock in the table above, as determined by the third-party valuations beginning with July 10, 2013 stock option grants, were used to measure the stock-based compensation expense for options granted during these periods.

There is inherent uncertainty in these estimates and, if we had made different assumptions than those described, the fair value of the underlying common stock and amount of our stock-based compensation expense, net loss and net loss per share amounts would have differed. Following the closing of this offering and the commencement of public trading of our common stock, the fair value per share of our common stock for purposes of determining stock-based compensation will be the closing price of our common stock as reported on the applicable grant date.

Common Stock Valuation Methodology—Third-Party Valuations

In estimating the fair value of our common stock at July 10, 2013, December 31, 2013 and June 2, 2014, given the absence of a public trading market for our common stock, and in accordance with the *American Institute of Certified Public Accountants Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, management and our third-party valuation specialists utilized the probability weighted expected return method, or PWERM, approach to allocate equity value to our common stock. The PWERM approach employs various market, income or cost approach calculations depending on the likelihood of various liquidation scenarios. For each of the various scenarios, an equity value is estimated and the rights and preferences for each class of stock are then considered to allocate the equity value to common stock. The common stock value is then multiplied by a discount factor reflecting the calculated discount rate and the timing of the event. Lastly, the common share value is multiplied by an estimated probability for each scenario. The probability and timing of each scenario are based on discussions between our board of directors and our management team. Under the PWERM, the value of our common stock was estimated based on four possible future events for our company:

- an earlier or later initial public offering, or IPO;
- a strategic merger or sale;

- our remaining a private company; and
- the dissolution of our company.

We used the market approach in determining the equity value of our business for use in the early and late IPO, strategic merger or sale and remaining private scenarios. We used the cost approach to value our net assets available to common stockholders if we were forced to liquidate our assets and dissolve the company. The cost approach involves identifying our significant tangible assets and liabilities, estimating the individual current market values of each and then totaling them to derive the value of the business as a whole.

The market approach estimates the fair value of a company by applying market multiples of comparable publicly traded companies and publicly disclosed data from arm's-length strategic merger or sale transactions involving similar companies in the marketplace. We reviewed recent precedent biopharmaceutical IPO and merger or sale transactions to develop equity value estimates for application at each measurement date. We gave consideration to differences between us and the selected guideline public companies in terms of size, anticipated profitability, market size and other critical characteristics that generally reflect an investor's assessment of the business and financial risks inherent in our industry. In particular we gave consideration to the fact that we have only one clinical-stage product candidate under development and that the product candidate is a chemically modified form of an existing approved drug with potential, but as yet unproven, differentiation. We also considered that this product candidate is intended to compete in a large existing market characterized by intense competition, low generic pricing and a challenging third-party reimbursement environment. In addition, we considered the size of the transaction, anticipated debt outstanding at IPO and number of employees as possible valuation proxies when comparing us with the guideline companies.

Significant factors contributing to the determination of the fair value of our common stock at the date of each grant beginning on July 10, 2013 were as follows:

July 2013 Grants

In estimating the fair value of our common stock in July 2013, management used a third-party valuation as of July 10, 2013. The following assumptions were used to complete the valuation using the PWERM analysis:

- future net equity value of $60.0 million used for early IPO (March 31, 2014), late IPO (June 30, 2014) and stay-private scenarios, determined using the market approach;
- future net equity value of $2.5 million used for the dissolution scenario, determined using the cost approach; and
- weighting of liquidity events at 25% for an early IPO, 5% for a later IPO, 0% for a strategic merger or sale, 5% for a dissolution and 65% to the stay-private scenario.

January 2014 Grants

In estimating the fair value of our common stock in January 2014, management used a third-party valuation as of December 31, 2013. The following assumptions were used to complete the valuation using the PWERM analysis:

- future net equity value of $90.0 million used for early IPO (September 30, 2014), late IPO (December 31, 2014) and stay-private scenarios, determined using the market approach;
- future net equity value of $117.0 million used for the strategic merger or sale scenario, determined using the market approach;
- future net equity value of $2.5 million used for the dissolution scenario, determined using the cost approach; and
- weighting of liquidity events at 30% for an early IPO, 5% for a later IPO, 5% for a strategic merger or sale, 5% for a dissolution and 55% for the stay-private scenario.

The increase in valuation from July 2013 was driven by the generation of bioequivalence clinical data for KP201/APAP, the successful completion of an end-of-Phase 2 meeting with the FDA regarding KP201/APAP and changes in management's assumption regarding the probability of an IPO.

June and July 2014 Grants

In estimating the fair value of our common stock in June and July 2014, management used a third-party valuation as of June 2, 2014. The following assumptions were used to complete the valuation using the PWERM analysis:

- future net equity value of $130.0 million used for early IPO (March 31, 2015) and late IPO (June 30, 2015) scenarios, determined using the market approach;
- future net equity value of $110.0 million used for the stay-private scenario, determined using the market approach;
- future net equity value of $135.0 million used for the strategic merger or sale scenario, determined using the market approach;
- future net equity value of zero used for the dissolution scenario, determined using the cost approach; and
- weighting of liquidity events at 50% for an early IPO, 20% for a later IPO, 20% for a strategic merger or sale, 5% for a dissolution and 5% for the stay-private scenario.

The increase in valuation from January 2014 was driven by the successful closing of the Deerfield facility and changes in management's assumption regarding the probability of an IPO.

Fair Value of Financial Instruments

We have common stock warrants and preferred stock warrants that meet the definition of derivative financial instruments and are accounted for as derivatives. The fair value of these warrant derivatives is based on either a Black-Scholes valuation model or a Monte Carlo simulation model at each reporting period.

The derivative liability for the common stock warrants was $1.1 million and $2.1 million at December 31, 2013 and September 30, 2014, respectively. The derivative liability for the preferred stock warrants was $0.4 million and $10.5 million at December 31, 2013 and September 30, 2014, respectively. Estimating the fair value of the underlying shares is highly complex and subjective because our stock is not publicly traded.

Upon exercise of the warrants, we will adjust the derivative liability to fair value with any changes recorded in other income (expense). At such time, the derivative liability will also be reclassified to additional paid-in capital, and no further revaluations will be necessary.

Utilization of Net Operating Loss Carryforwards and Research and Development Credits

As of December 31, 2013, we had federal net operating loss, or NOL, carryforwards of approximately $22.6 million with expiration dates from 2027 to 2033. We also had research and development credit carryforwards of $0.9 million with expiration dates ranging from 2027 to 2033.

In accordance with Section 382 of the Code, a change in equity ownership of greater than 50% within a three-year period results in an annual limitation on a company's ability to utilize its NOL carryforwards created during the tax periods prior to the change in ownership**.** We have not determined if we have experienced Section 382 ownership changes in the past and if a portion of our NOL carryforwards are subject to an annual limitation under Section 382 of the Code. If we experience a Section 382 ownership change in connection with this offering or as a result of future changes in our stock ownership, the tax benefits related to the NOL carryforwards may be further limited or lost.

Emerging Growth Company Status

Under Section 107(b) of the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Recent Accounting Pronouncements

Effective January 2012, we adopted Accounting Standards Update, or ASU, No. 2011-04, *Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRS*. ASU 2011-04 represents the converged guidance of the FASB and the International Accounting Standards Board on fair value measurement and has resulted in common requirements for measuring fair value and for disclosing information about fair value measurements, including a consistent meaning of the term fair value. We adopted ASU 2011-04 effective January 1, 2012 and have applied the provisions of ASU 2011-04 for all periods presented. This new guidance only affects how we report fair value measures and, therefore, the adoption did not have a material impact on our financial statements.

In June 2014, the Financial Accounting Standards Board, or FASB, issued ASU No. 2014-10, *Development Stage Entities* (Topic 915): *Elimination of Certain Financial Reporting Requirements, Including an Amendment to Variable Interest Entities Guidance in Topic 810, Consolidation*. This ASU removes all incremental financial reporting requirements for development stage entities, including the removal of Topic 915 from the FASB Accounting Standards Codification. The amendments in this ASU eliminate certain disclosure requirements to (1) present inception-to-date information in the statements of income, cash flows and shareholder equity, (2) label the financial statements as those of a development stage entity, (3) disclose a description of the development stage activities in which the entity is engaged and (4) disclose in the first year in which the entity is no longer a development stage entity that in prior years it had been in the development stage. The ASU clarifies that disclosures about risks and uncertainties required by Topic 275 also apply to entities that have not commenced planned principal operations. We have elected to early adopt ASU 2014-10. The amendments primarily relate to disclosure matters and, therefore, have no impact on our financial statements, other than the omission of previously required disclosures including inception-to-date financial information.

In July 2013, the FASB issued ASU No. 2013-11, *Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exist*. ASU 2013-11 amends the presentation requirements of ASC Topic 740 Income Taxes and requires an unrecognized tax benefit to be presented in the financial statements as a reduction to a deferred tax asset for a NOL carryforward, similar tax loss, or a tax credit carryforward. To the extent the tax benefit is not available at the reporting date under the governing tax law or if the entity does not intend to use the deferred tax asset for such purpose, the unrecognized tax benefit should be presented as a liability and not combined with deferred tax assets. ASU 2013-11 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2013. The amendments are to be applied to all unrecognized tax benefits that exist as of the effective date and may be applied retrospectively to each prior reporting period presented. We are currently evaluating the impact of the adoption of ASU 2013-11 on our financial statements and disclosures.

In June 2014, the FASB issued ASU 2014-12, *Compensation-Stock Compensation (Topic 718): Accounting for Share-Based Payments when the Terms of an Award Provide that a Performance Target Could Be Achieved After the Requisite Service Period.* The ASU requires that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition. ASU 2014-12 is effective for annual periods and interim periods within those annual periods beginning after December 15, 2015. Earlier adoption is permitted. Entities may apply ASU 2014-12 either (a) prospectively to all awards granted or modified after the effective date or

(b) retrospectively to all awards with performance targets that are outstanding as of the beginning of the earliest annual period presented in the financial statements and to all new or modified awards thereafter. If retrospective transition is adopted, the cumulative effect of applying this ASU as of the beginning of the earliest annual period presented in the financial statements should be recognized as an adjustment to the opening retained earnings balance at that date. Additionally, if retrospective transition is adopted, an entity may use hindsight in measuring and recognizing the compensation cost. We are currently evaluating the impact of the adoption of ASU 2014-12 on our financial statements and disclosures.

In August 2014, the FASB issued ASU No. 2014-15, *Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern*, which amends ASC Subtopic 205-40 to provide guidance about management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related disclosures. Specifically, the amendments (1) provide a definition of the term "substantial doubt," (2) require an evaluation every reporting period, (3) provide principles for considering the mitigating effect of management's plans, (4) require certain disclosures when substantial doubt is alleviated as a result of consideration of management's plans, (5) require an express statement and other disclosures when substantial doubt is not alleviated and (6) require an assessment for a period of one year after the date that financial statements are issued. ASU 2014-15 is effective for fiscal years ending after December 15, 2016, and for annual periods and interim periods thereafter. We are currently evaluating the impact of the adoption of ASU 2014-15 on our financial statements and disclosures.

Quantitative and Qualitative Disclosure about Market Risk

Interest Rate Sensitivity

Our primary exposure to market risk for our cash and cash equivalents is interest income sensitivity, which is affected by changes in the general level of U.S interest rates. However, we do not believe a sudden change in the interest rates would have a material impact on our financial condition or results of operations. A hypothetical 10% change in interest rates during any of the periods presented would not have had a material impact on our financial statements.

We are not subject to interest rate risk in connection with borrowings under the Deerfield facility because borrowings bear a fixed rate of interest.

BUSINESS

Overview

We are a clinical-stage specialty pharmaceutical company engaged in the discovery and development of proprietary prodrugs that we believe will be improved versions of widely prescribed, approved drugs. We employ our Ligand Activated Therapy, or LAT, platform technology to create our prodrugs, each of which is a new molecular entity, or NME, and therefore may be eligible for composition-of-matter patent protection. Our most advanced product candidate, KP201/APAP, consists of KP201, our NME prodrug of hydrocodone, formulated in combination with acetaminophen, or APAP. We are developing KP201/APAP as an immediate release, or IR, product candidate for the treatment of acute moderate to moderately severe pain. We designed KP201/APAP with abuse-deterrent properties to address the epidemic of opioid abuse in the United States. We intend to submit a new drug application under Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, otherwise known as a 505(b)(2) NDA, for KP201/APAP to the U.S. Food and Drug Administration, or FDA, in the third quarter of 2015. We are also building a pipeline of additional NME prodrug product candidates that target large market opportunities in pain, attention deficit hyperactivity disorder, or ADHD, and other central nervous system indications.

Key members of our senior management, while at New River Pharmaceuticals Inc., were instrumental in the development of Vyvanse, a prodrug of amphetamine indicated for ADHD, through FDA approval. New River Pharmaceuticals was acquired by Shire plc in 2007 and Vyvanse generated over $1.2 billion in sales in 2013.

We use our LAT platform technology to discover and develop NME prodrugs that improve one or more of the attributes of approved drugs, such as susceptibility to abuse, side-effect profile, bioavailability and safety. We primarily seek to develop NME prodrugs that will be eligible for approval under the 505(b)(2) NDA pathway, which allows us to rely on the FDA's previous findings of safety and effectiveness for one or more approved products, if we demonstrate such reliance is scientifically appropriate. Because our prodrugs are novel combinations of an FDA-approved drug, referred to as the parent drug, with one or more ligands, they are NMEs and may be eligible for composition-of-matter patent protection.

IMS Health Incorporated, or IMS, a healthcare information firm, estimates that IR hydrocodone bitartrate formulated in combination with APAP, or hydrocodone/APAP, products accounted for 127 million prescriptions in the United States in 2013. We designed KP201/APAP to offer significant benefits over these widely prescribed hydrocodone/APAP products. We believe that KP201/APAP will provide abuse-deterrence and may provide an improved side-effect profile compared to these products while offering equivalent efficacy.

According to the U.S. Department of Health and Human Services, or HHS, prescription drug overdose death rates in the United States have increased five-fold since 1980, and by 2009, drug overdose deaths outnumbered deaths due to motor vehicle crashes. HHS also estimates that, in 2010, opioid analgesics were involved in approximately 60% of U.S. drug overdose deaths where a drug was specified.

We designed KP201/APAP to deter tampering and abuse by selecting a molecular structure that prevents the release of the opioid upon crushing, physical manipulation and the application of other commonly employed extraction techniques. This approach to abuse-deterrence at the molecular level contrasts with other abuse-deterrent technologies, which are formulation-based, combining the opioid drug with another drug or use an abuse-deterrent capsule or physical matrix. We believe our molecular-based approach to abuse deterrence may be more effective than many formulation-based approaches. We believe the KP201 prodrug does not release hydrocodone effectively upon intranasal administration and has very poor solubility in blood, water and other solvents, thus rendering it unsuitable for intravenous, or IV, administration.

Based on our preclinical studies, we believe KP201/APAP may have the potential to reduce the incidence of opioid-induced constipation, or OIC, as compared to hydrocodone/APAP combination products because KP201 does not effectively interact with the μ-opioid receptors in the gastrointestinal, or GI, tract, which are widely believed to be the primary cause of OIC upon exposure to opioid drugs. OIC is a common side effect of treatment with opioids.

Based on our KP201/APAP human bioavailability trials, the FDA has confirmed that KP201/APAP is bioequivalent to Norco, an approved hydrocodone/APAP combination product that we intend to cite in our 505(b)(2) NDA. Based on communications with the FDA, we believe that we will not be required to conduct any additional efficacy trials for KP201/APAP.

We believe that KP201/APAP has the potential to be the first FDA-approved IR product for the treatment of pain with the efficacy of hydrocodone/APAP combination products and abuse-deterrent labeling. We are conducting clinical trials that are designed with the goal of obtaining abuse-deterrent claims in our product label for KP201/APAP. We are conducting these trials in accordance with draft guidance that the FDA introduced in 2013 specifying the necessary studies and data required for obtaining abuse-deterrent claims in a product label. We are also conducting a clinical trial to evaluate the ability of KP201/APAP to preserve GI motility as compared to hydrocodone/APAP combination products as a surrogate for KP201/APAP's ability to reduce the incidence of OIC compared to those products. This trial will not be sufficient to support a comparative claim. We intend to submit our new drug application, or NDA, to the FDA in the third quarter of 2015 and we believe it will receive priority review like other abuse-deterrent opioids.

Additionally, we intend to advance our pipeline of other product candidates for the treatment of pain, ADHD and other central nervous system, or CNS, indications and we anticipate reporting human proof-of-concept, or POC, data for three product candidates in 2016 and 2017. We plan to employ our LAT platform technology and development expertise to develop additional product candidates that address unmet medical needs in large, established markets. We believe our product candidates will be eligible for composition-of-matter patent protection and we intend to use the 505(b)(2) NDA pathway when available, which we believe will reduce drug development time, risk and expense. We own worldwide commercial rights for all of our product candidates, including KP201/APAP, except that Shire has a right of first refusal to acquire, license or commercialize KP415.

As of September 30, 2014, our patent portfolio consisted of 20 granted patents and 86 pending patent applications worldwide, including a granted U.S. composition-of-matter patent covering KP201, a pending U.S. patent application covering KP201-related compositions-of-matter and a granted U.S. composition-of-matter patent covering the prodrug underlying one of our other product candidates.

Our Strategy

Our goal is to be a leading specialty pharmaceutical company focused on the discovery, development and commercialization of novel and proprietary NME prodrugs. Key components of our strategy are:

- ***Secure FDA approval for KP201/APAP as the first IR pain therapeutic product with the efficacy of hydrocodone/APAP combination products and an abuse-deterrent label.*** We are developing KP201/APAP to treat acute moderate to moderately severe pain. We plan to submit an NDA to the FDA in the third quarter of 2015. We expect that the approval process for KP201/APAP will be conducted according to the 505(b)(2) NDA pathway and will be subject to priority review, with potential approval as early as mid-2016. Prior to product launch, the U.S. Drug Enforcement Administration, or DEA, would then need to determine the controlled substance schedule of KP201/APAP, taking into account the recommendation of the FDA, which we expect would occur as early as 2017.

- ***Commercialize KP201/APAP***. We intend to evaluate U.S. commercialization options for KP201/APAP, if it is approved by the FDA, including pursuing a commercial collaboration, building a proprietary sales force, utilizing a contract sales force or pursuing a strategic transaction. We may also license the international commercial rights to KP201/APAP to one or more collaborators.
- ***Advance the development of our other pipeline product candidates***. We plan to advance the development of KP415, our prodrug of methylphenidate, for the treatment of ADHD, KP511/ER, our extended release, or ER, formulation of our prodrug for hydromorphone, for the treatment of moderate to severe pain, and KP606/ER, our ER formulation of our prodrug of oxycodone, for the treatment of moderate to severe pain. We plan to advance all three of these product candidates through human proof-of-concept trials to evaluate their bioequivalence to appropriate FDA-approved drugs, and expect to report data from these trials in 2016 and 2017.
- ***Leverage our LAT platform technology to develop additional product candidates***. We plan to employ our LAT platform technology to develop additional NME prodrugs that have improved properties over approved drugs and address unmet medical needs in large, established markets. We intend to develop NME prodrugs of FDA-approved drugs in multiple therapeutic areas.
- ***Continue to build a global intellectual property portfolio***. We intend to vigorously pursue composition-of-matter patent protection for our NME prodrugs in markets covering a majority of the global commercial opportunity. As of September 30, 2014, our patent portfolio consisted of 20 granted patents and 86 pending patent applications worldwide, including a granted U.S. composition-of-matter patent covering KP201, a pending U.S. patent application covering KP201-related compositions-of-matter and a granted U.S. composition-of-matter patent covering KP511, the prodrug underlying our KP511/ER product candidate.

Our LAT Prodrug Platform Technology

We use our LAT platform technology to create NME prodrugs by chemically attaching one or more molecules, referred to as ligands, to an FDA-approved parent drug. We typically use ligands that have been demonstrated to be safe in toxicological studies or have been granted Generally Recognized as Safe, or GRAS, status for food use by the FDA. Our prodrugs are chemical successors of the parent drugs, but are considered to be NMEs and thus may be eligible for protection by composition-of-matter patents. When the prodrug is administered to a patient as intended, the targeted human metabolic processes, such as those in the GI tract, separate the ligand from the prodrug and release the parent drug, which can then exert its therapeutic effect. We select particular ligands that, when combined with the parent drug, create prodrugs designed to have improved drug attributes while maintaining efficacy equivalent to the parent drug.

We believe that our LAT platform technology offers the following potential benefits:

- ***Improved drug properties***. We seek to develop NME prodrugs with improved attributes over FDA-approved drugs, such as reduced susceptibility to abuse, better side-effect profile, enhanced bioavailability and increased safety. For example, the molecular structure of KP201/APAP is designed to resist tampering and deter abuse, and we believe KP201/APAP may have the potential to reduce the incidence of OIC as compared to hydrocodone/APAP combination products.
- ***Composition-of-matter patent protection***. Our prodrugs combine an FDA-approved parent drug with one or more ligands to create NMEs and may be eligible for patent protection as novel compositions of matter, provided that all other applicable requirements are met. We seek patent protection not only for our NME prodrug product candidates, but also for related compounds with the intention of creating heightened barriers to market entry.
- ***Eligibility for 505(b)(2) NDA pathway***. Our LAT platform technology allows us to develop NME prodrugs that may be eligible to use the 505(b)(2) NDA pathway. Under that regulatory

pathway, if we are able to demonstrate the bioequivalence of one of our product candidates to an appropriate approved drug, we will then be able to reference the FDA's previous findings of safety and effectiveness for the approved drug in our 505(b)(2) NDA submissions. This may allow us to avoid the significant time and expense of conducting large clinical trials and eliminate the need for some preclinical activities.

The Epidemic of Prescription Drug Abuse in the United States

The United States is facing a growing epidemic of prescription drug abuse. According to HHS, prescription drug overdose death rates in the United States have increased five-fold since 1980, and by 2009, drug overdose deaths outnumbered deaths due to motor vehicle crashes. HHS also estimates that opioid analgesics were involved in approximately 60% of U.S. drug overdose deaths where a drug was specified in 2010. The economic costs of this public health problem are significant. A study published in 2011 in a peer-reviewed medical journal estimated that the costs of the non-medical use of prescription opioids in the United States are over $50 billion annually, including medical and substance abuse treatment costs, lost work productivity and criminal justice costs.

The increasing negative social consequences and costs of prescription drug abuse have led to a number of regulatory and legislative actions and proposals, including:

- ***FDA Draft Guidance***. In January 2013, the FDA published draft guidance with regard to the evaluation and labeling of abuse-deterrent opioids. For the first time, the FDA provided direction as to the studies and data required for obtaining abuse-deterrent claims in a product label. The draft guidance describes four tiers of label claims for abuse-deterrent products:
  - Tier 1—the product is formulated with physical or chemical barriers to abuse.
  - Tier 2—the product is expected to reduce or block effects of the opioid when the product is manipulated.
  - Tier 3—the product is expected to result in a meaningful reduction in abuse.
  - Tier 4—the product has demonstrated reduced abuse in the community.

  If a product is approved by the FDA to include such claims in its label, the applicant may use information about the abuse-deterrent features of the product in its marketing efforts to physicians.
- ***FDA Authority***. In an April 2013 letter to the U.S. House of Representatives' Committee on Energy and Commerce, the FDA outlined its authority to address the issue of prescription opioid abuse in the United States. The FDA asserted that, if it determines that a formulation of an extended-release opioid drug product has abuse-deterrent properties, it has the authority to refrain from approving non-abuse-deterrent formulations of the drug and to initiate procedures to withdraw the non-abuse-deterrent formulations already on the market.
- ***FDA Action***. The FDA has approved the inclusion of language regarding the ability to deter abuse in the product labels for four abuse-deterrent opioids, OxyContin, Targiniq ER, Embeda and Hysingla. These actions reinforce the FDA's public statement that the development of abuse-deterrent opioid analgesics is a public health priority.
- ***STOPP Act***. In July 2012, a bipartisan group of Congressional leaders introduced the STOPP (Stop the Tampering of Prescription Pills) Act. Reintroduced in February 2013, the STOPP Act would have required that non-abuse-deterrent opioids be removed from the market if an abuse-deterrent formulation of the same opioid is approved for marketing by the FDA.
- ***FDA Public Meeting***. In October 2014, the FDA hosted a public meeting to discuss the development, assessment and regulation of abuse-deterrent formulations of opioid medications. In the announcement for the public meeting, the FDA anticipated that, after abuse-deterrent formulations become available for a number of different opioid medications and after it gains more experience with formulations with meaningful abuse-deterrent properties, the FDA may determine that the risks outweigh the benefits for all or most opioid products without abuse-deterrent properties.

Our NME Prodrug Product Candidates

We have employed our LAT platform technology to create a portfolio of product candidates that we believe will offer significant improvements over FDA-approved and widely prescribed drugs. Our pipeline of product candidates is summarized in the table below:

Selected KemPharm NME Prodrug Product Candidates

Indication / Parent Drug	Product Candidate	Development Status	Key Milestone
Pain			
Hydrocodone (IR)	KP201/APAP	Clinical Trials	NDA Filing – Q3 2015
Hydromorphone (extended release)	KP511/ER	Preclinical	Human POC Data – 2016
Oxycodone (extended release)	KP606/ER	Preclinical	Human POC Data – 2017
ADHD			
Methylphenidate (controlled release)	KP415	Preclinical	Human POC Data – 2016
Multiple CNS Disorders			
Quetiapine	KP303	Preclinical	Preclinical Development

KP201/APAP

Overview

Our most advanced product candidate, KP201/APAP, is an IR combination of KP201, our NME prodrug of hydrocodone, and APAP. We are developing KP201/APAP for the treatment of acute moderate to moderately severe pain. KP201/APAP is designed to be an abuse-deterrent opioid product with a reduced side-effect profile as compared to the existing standard-of-care, IR hydrocodone/APAP combination products, such as Vicodin, Norco and Lortab. KP201 combines hydrocodone with the ligand benzoic acid to form an NME called benzhydrocodone and can be formulated in both IR and ER dosage forms. KP201 is designed not to release its hydrocodone component until it is metabolized in the GI tract following oral administration. We believe KP201/APAP is highly tamper-resistant and is stable under conditions that can potentially defeat many other abuse-deterrent technologies.

The graphic below illustrates the steps required to extract abusable opioid from traditional opioid products that do not incorporate abuse-deterrent technology, from many formulation-based abuse-deterrent products and from KP201/APAP. We believe the molecular-based abuse-deterrent characteristics of KP201/APAP present a higher barrier to abuse than many formulation-based abuse-deterrent approaches.

Number and Complexity of Steps Required to Access Abusable Opioid

We plan to seek approval of KP201/APAP under the 505(b)(2) NDA pathway, which permits companies to rely upon the FDA's previous findings of safety and effectiveness for an approved product or products and published medical and scientific literature. We anticipate submitting our 505(b)(2) NDA for KP201/APAP to the FDA in the third quarter of 2015 and expect that KP201/APAP, like other abuse-deterrent opioids, will receive priority review, allowing for potential FDA approval as early as mid-2016. Prior to product launch, the DEA would then need to determine the controlled substance schedule of KP201/APAP, taking into account the recommendation of the FDA, which we expect would occur as early as 2017.

Market Opportunity

IMS estimates that in 2013, IR hydrocodone/APAP combination products represented the most frequently prescribed opioid products in the United States, accounting for 127 million U.S. prescriptions. Typically, patients are instructed to take four pills per day and prescriptions provide approximately 14 days of therapy. Hydrocodone is associated with more drug abuse and diversion than any other opioid and IR hydrocodone abuse results in more emergency department visits than any other prescription opioid. Currently, there are no IR hydrocodone/APAP combination products approved in the United States with an abuse-deterrent label.

Key Product Features of KP201/APAP

We believe KP201/APAP, if approved by the FDA, may have many valuable product features and may provide significant benefits to patients, physicians and society when compared to other FDA-approved and widely prescribed IR hydrocodone/APAP combination products:

- ***Molecular-based abuse-deterrent technology*.** Unlike formulation-based opioid abuse-deterrent approaches, KP201/APAP incorporates our LAT platform technology to create its abuse-deterrent properties at the molecular level. This may provide a higher barrier against

attempted abuse than many existing formulation-based approaches. Physical manipulation, common solvent extraction, smoking and other conventional extraction methods applied to KP201/APAP do not release significant amounts of hydrocodone. We believe the KP201 prodrug does not release hydrocodone effectively upon intranasal administration and has very poor solubility in blood, water and other solvents, thus rendering it unsuitable for IV administration.

- ***Potential to reduce the incidence of OIC.*** The interaction of opioid drugs with the μ-opioid receptors in the human GI tract is widely believed to be the primary cause of OIC. Based on our preclinical studies and our understanding of KP201's μ-opioid receptor pharmacology, we believe KP201/APAP will not effectively interact with the μ-opioid receptors in the GI tract. Therefore, we believe that KP201/APAP may have the potential to reduce the incidence of OIC as compared to hydrocodone/APAP combination products.
- ***Composition-of-matter patent protection.*** KP201/APAP is protected by a U.S. composition-of-matter patent on KP201 that will expire, after utilizing all appropriate patent term adjustments but excluding possible patent term extensions, in 2031. Our patent strategy is focused primarily on key geographic market opportunities, and, as of September 30, 2014, KP201 had received granted, issued or allowed patent status in 11 foreign jurisdictions and patent applications covering KP201 were pending in an additional 19 jurisdictions.
- ***No generic equivalent product.*** KP201 is an NME prodrug with a new chemical name, benzhydrocodone. We expect KP201/APAP, if approved, will have a lower prescribed milligram strength of KP201 than the therapeutic equivalent amount of hydrocodone bitartrate used in existing IR hydrocodone/APAP combination products. The difference in chemical name and prescription strength will mean that there will be no generic equivalent product for KP201/APAP in most states, making substitution difficult at the pharmacy.
- ***Convenient dosing.*** Based on data from our food-effect clinical trial, we believe that KP201/APAP can be administered under both fed and fasting conditions and, accordingly, we believe that KP201/APAP will be as convenient as existing IR hydrocodone/APAP combination products.

KP201/APAP Clinical Development Program

We plan to seek approval of KP201/APAP under the 505(b)(2) NDA pathway, which permits companies to rely upon the FDA's previous findings of safety and effectiveness for one or more approved products and published medical and scientific literature. We completed a bioavailability trial comparing KP201/APAP to Norco, an approved hydrocodone/APAP combination product, and the FDA has confirmed that KP201/APAP is bioequivalent to Norco. However, to rely on the FDA's previous findings of safety and effectiveness for an approved product in a 505(b)(2) NDA, the approved product must be an NDA product. Because there are no approved NDAs for hydrocodone/APAP combination products, including for Norco, we are required to establish the safety and effectiveness of APAP and the safety and effectiveness of hydrocodone separately through other methods. We recently completed a bridging bioavailability trial of KP201/APAP and Ultracet, an FDA-approved tramadol/APAP combination NDA product. The data from this trial suggests comparable bioavailability between the APAP in KP201/APAP and the APAP in Ultracet. We intend to reference the FDA's prior findings of safety and effectiveness for the APAP component of Ultracet in our 505(b)(2) NDA. We also plan to reference in our 505(b)(2) NDA published medical and scientific literature that establish the safety and effectiveness of hydrocodone. Based on communications with the FDA, we believe that no additional efficacy trials will be required for KP201/APAP.

We are also conducting three clinical trials that will generate additional data that we expect to include in our 505(b)(2) NDA submission. Two of these trials are human abuse liability trials and are designed with the goal of obtaining abuse-deterrent claims in our product label for KP201/APAP in accordance with the FDA draft guidance. We expect data from the first of these trials, an oral human abuse liability trial, in the first quarter of 2015 and data from the second trial, an intranasal human abuse liability trial, in the second quarter of 2015.

Our third ongoing trial is a human GI motility trial designed to evaluate the ability of KP201/APAP to preserve GI motility as compared to hydrocodone/APAP combination products as a surrogate for KP201/APAP's ability to reduce the incidence of OIC compared to those products. This trial will not be sufficient to support a comparative claim. We expect to report data from this trial in the first quarter of 2015. We anticipate submitting our 505(b)(2) NDA for KP201/APAP to the FDA in the third quarter of 2015 and we expect that KP201/APAP, like other abuse-deterrent opioids, will receive priority review.

Completed Clinical Trials

KP201 Pilot Pharmacokinetics and Bioavailability Trial. We submitted our investigational new drug, or IND, application for KP201 to the FDA in January 2011, and conducted our first human clinical trial of KP201 from February through March 2011. This trial was intended to provide proof of concept of KP201's bioavailability compared to Norco. This trial assessed the pharmacokinetics of KP201, hydrocodone and hydromorphone, an opioid resulting from the metabolism of hydrocodone, over a 24-hour period after oral administration of KP201 at doses of 5 mg and 10 mg and the commercially available tablet version of Norco (10 mg of hydrocodone bitartrate / 325 mg of APAP) under fasted conditions. The 10 mg dose of KP201 and the tablet version of Norco are equimolar, meaning the number of KP201 molecules in the KP201 dose is the same as the number of molecules of hydrocodone in the Norco dose. Pharmacokinetics refers to the process by which a drug is distributed and metabolized in the body, including information on drug levels in the systemic circulation and how these levels change over time. A total of 24 healthy adult volunteers were enrolled in the trial and 21 of the subjects completed it.

The results of the trial were that the plasma concentrations for both hydrocodone and hydromorphone after administration of 10 mg of KP201 were comparable to the levels following an equimolar dose of Norco and the results were within the statistical parameters established for bioequivalence by the FDA. In addition, we observed dose proportionality of 5 mg of KP201 as compared to 10 mg of KP201. The systemic exposure to intact KP201 was below the measurement threshold in each subject at all of the measurement points.

A total of 58 adverse events following dose administration were reported over the course of the trial. Of these, 35 were mild and 23 were moderate. There were no serious adverse events. We do not believe any of the adverse events were unusual or unexpected following the administration of opioid medication.

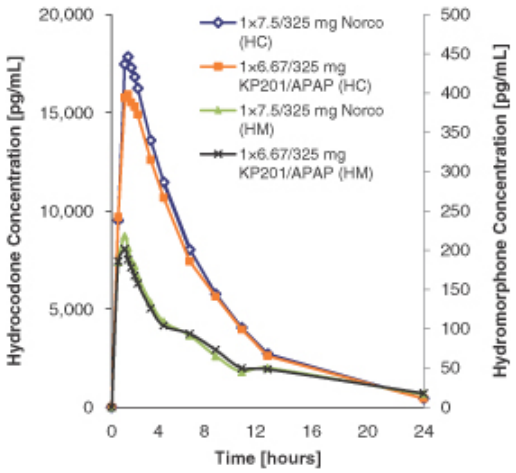
KP201/APAP Bioequivalence Trial. In August 2013, we conducted our second human clinical trial of KP201, an open-label, bioequivalence trial comparing KP201/APAP to Norco. The primary objective of this trial was to compare the pharmacokinetic profile and exposure of hydrocodone, hydromorphone and APAP over a 24-hour period after a single dose of KP201/APAP (6.67 mg / 325 mg) relative to a single dose of Norco (7.5 mg / 325 mg) when administered orally under fasted conditions. These doses of KP201/APAP and Norco are equimolar even though the milligram dose of each drug per tablet is slightly different. Randomized subjects received two single-dose treatments, each separated by a seven-day washout period. A total of 30 healthy volunteers participated in the trial and 23 of the subjects completed it.

The results of the trial were that the plasma concentration levels for hydrocodone, hydromorphone and APAP after administration of KP201/APAP were comparable to the levels following an equimolar dose of Norco, and the results for hydrocodone and hydromorphone were within the statistical parameters established for bioequivalence by the FDA. The lower limit for one pharmacokinetic parameter for APAP was trivially outside of the statistical range for bioequivalence, but overall, KP201/APAP was still considered by the FDA to be bioequivalent to Norco with regard to APAP.

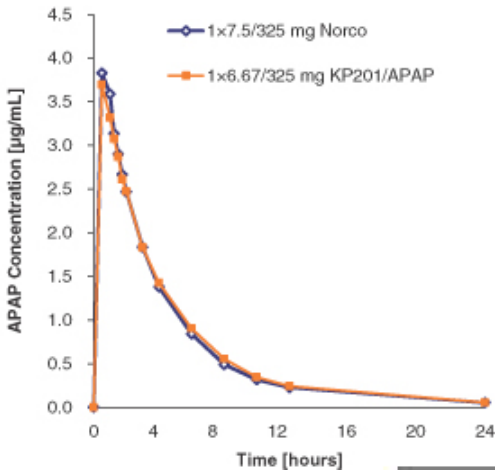
The following charts summarize the bioequivalence data from this trial.

KP201/APAP Bioequivalence Trial

Hydrocodone/Hydromorphone



Acetaminophen



Note: HC refers to hydrocodone and HM refers to hydromorphone.

In addition, systemic exposure to intact KP201 was below the measurement threshold in each subject at all of the measurement points. There were no unusual or unexpected adverse events.

KP201/APAP Multi-Dose/Steady State Trial. This trial, which we conducted in July and August 2013, was intended to assess the pharmacokinetics of KP201 after single and multiple doses of KP201/APAP in healthy volunteers. The primary objectives of this trial were to assess the pharmacokinetics of KP201, hydrocodone, hydromorphone and APAP following a single dose of two KP201/APAP tablets (6.67 mg / 325 mg) and to assess the steady-state pharmacokinetics of KP201, hydrocodone, hydromorphone and APAP following 13 doses of two KP201/APAP tablets administered every four hours under fasted conditions. A total of 26 healthy adult volunteers were enrolled in the trial and 24 of the subjects completed it.

The results of the trial were that all plasma concentrations of KP201 were below the measurement threshold at all time points for all subjects, indicating that there was no systemic exposure to the prodrug even after administration of two tablets every four hours for 13 doses. Naltrexone, a narcotic antagonist, was administered to minimize the occurrence of adverse effects often associated with administration of opioids. There were no unusual or unexpected adverse events.

KP201/APAP Food-Effect Trial. This trial, which we conducted in December 2013 and January 2014, was intended to assess the effect of food on the bioavailability and pharmacokinetics of hydrocodone and APAP from KP201/APAP tablets, as well as to assess the relative bioavailability of hydrocodone and APAP from KP201/APAP tablets as compared to equimolar doses of Norco, each under fed conditions. Randomized subjects received a single dose of KP201/APAP (6.67 mg / 325 mg) administered orally under fed conditions in one period, a single dose of KP201/APAP (6.67 mg / 325 mg) under fasted conditions in one period, and a single dose of Norco (7.5 mg / 325 mg) under fed conditions in one period. Fed conditions reflected an FDA-standard high-fat, high-calorie breakfast. A total of 42 healthy adult volunteers enrolled in the trial and 38 of the subjects completed it.

The results of the trial were that there were no overall changes in exposure to hydrocodone or to APAP when KP201/APAP tablets were administered under fed conditions that would be of clinical significance compared to KP201/APAP administered under fasted conditions or compared to Norco administered under fed conditions. We believe the data from this trial suggest there is no food effect with regard to the administration of KP201/APAP and that that the labeling for KP201 could indicate that it can be administered without regard to meals.

In addition, systemic exposure to intact KP201 was below the measurement threshold in each subject at all of the measurement points. There were no unusual or unexpected adverse events.

Comparative Bioavailability of KP201/APAP and Ultracet Trial. This trial, which was conducted in July and August 2014, was intended to assess the relative bioavailability of KP201/APAP compared to Ultracet in order to allow us to reference the FDA's prior findings of safety and effectiveness of Ultracet in our 505(b)(2) NDA. Ultracet, like KP201/APAP, is a combination product containing an opioid, in this case tramadol, and APAP. The primary objective of this trial was to compare the rate and extent of absorption of APAP from KP201/APAP relative to Ultracet when administered orally to healthy subjects under fasted conditions. Randomized subjects received a single dose of KP201/APAP (6.67 mg / 325 mg) and a single dose of Ultracet (37.5 mg of tramadol / 325 mg of APAP) with the two administrations separated by a seven-day washout period. A total of 30 healthy adult volunteers enrolled in the trial and 27 of the 30 subjects completed it.

The results of the trial were that there were no overall differences in exposure to APAP from KP201/APAP as compared to Ultracet. In addition, there were no unusual or unexpected adverse events.

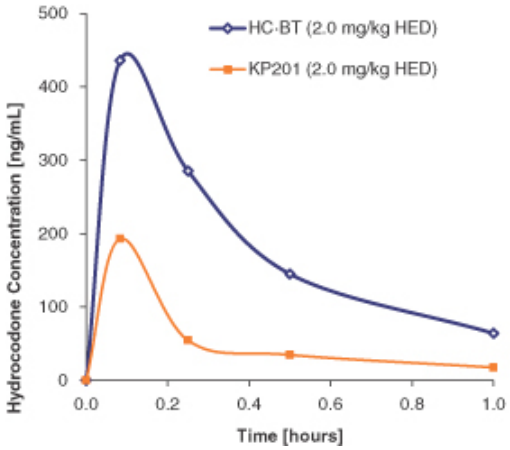
Preclinical Abuse Deterrence and Tamper-Resistant Extraction Studies

In order to evaluate the abuse-deterrent qualities of KP201, we conducted preclinical studies in rats to compare the exposure to hydrocodone following intranasal and IV administration of KP201 as compared to intranasal and IV administration of hydrocodone bitartrate, the form of hydrocodone in Norco. As shown in the charts below, we observed significantly lower plasma concentrations of hydrocodone following intranasal and IV administration of KP201 when compared to intranasal and IV administered hydrocodone bitartrate.

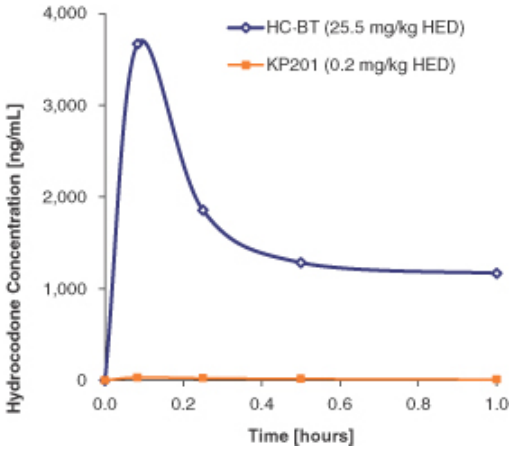
We believe we may see even better results, or lower plasma levels of hydrocodone, following KP201 intranasal administration in our ongoing intranasal human abuse liability trial because the rats we studied have the ability to metabolize KP201 much better than humans. For the IV administration of KP201 in rats, we used a fully saturated, buffered solution of KP201, but because KP201 is poorly soluble under these conditions, the maximum dose that could be dissolved and injected intravenously into the rats was only about 0.30 mg/kg (equal to 0.20 mg/kg of hydrocodone content). This amount was only about one percent of the hydrocodone contained in the comparative IV dose of hydrocodone bitartrate, which likewise reflected the maximum amount of hydrocodone bitartrate that could be dissolved and injected. We believe KP201's poor solubility in blood, water and other solvents renders it unsuitable for IV administration. The following charts summarize the data from this study.

KP201 Abuse-Deterrent Properties in Preclinical Study in Rats

Intranasal



Intravenous



Note: HC BT refers to hydrocodone bitartrate.
HED refers to human equivalent dose.

In order to evaluate the tamper-resistant properties of KP201, we conducted multiple tamper-resistant extraction studies. For example, we performed solvent extraction studies, and preliminary results of these studies suggested that, although KP201 is soluble in a number of solvents, dissolving KP201 in solution only yields the intact, inactive prodrug in solution and does not release hydrocodone. Preliminary results of these studies also suggested that KP201 is much less soluble in water than hydrocodone bitartrate and is poorly soluble in human blood.

We also conducted multiple solvent hydrolysis studies of KP201. The table below summarizes preliminary results of these studies suggesting that KP201 remains intact, and does not hydrolyze, or break down into its two components, hydrocodone and benzoic acid, in commonly available solvents at room temperature or even at their respective boiling points.

KP201 Solvent Hydrolysis Studies

	% Release of Hydrocodone					
	Ambient Temperature			At Boiling Point		
Solvent	**0.5 hours**	**1 hour**	**4 hours**	**0.5 hours**	**1 hour**	**4 hours**
Water	0	0	0	0	0	0
Ethanol	0	0	0	0	0	0
Methanol	0	0	0	0	0	0
Acetone	0	0	0	0	0	0
Ethyl acetate	0	0	0	0	0	0
Toluene	0	0	0	0	0	0
Xylene	0	0	0	0	0	0
Tetrahydrofuran	0	0	0	0	0	0
Methy ethyl ketone	0	0	0	0	0	0
Octane	0	0	0	0	0	0
Petrol ether	0	0	0	0	0	0

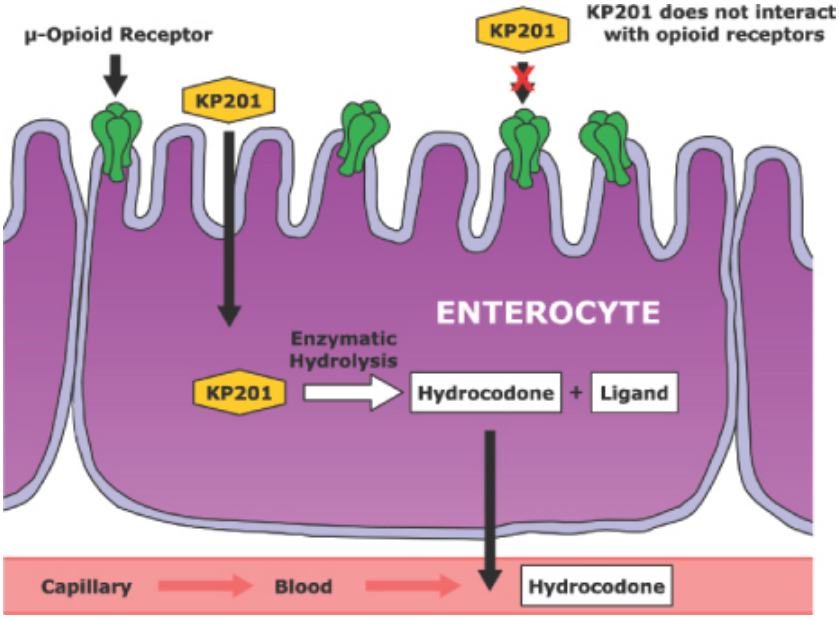
In addition, we conducted various harsh-chemical and real-world “kitchen” studies that used typical drug abuser-accessible solvents and methodologies, as well as a simulated smoking study. No hydrocodone release from the prodrug was observed in the simulated smoking study. In the other studies, we observed that only very harsh and extreme acidic or basic conditions can begin to hydrolyze KP201 and release its hydrocodone, but the resulting end product is toxic and not suitable for abuse. The toxic end product can only be made suitable for abuse by neutralizing it or isolating the hydrocodone using advanced chemistry and sophisticated laboratory equipment. As a result of our tamper-resistant extraction studies, we believe KP201/APAP is highly tamper-resistant and is stable under conditions that can potentially defeat many formulation-based abuse-deterrent technologies.

KP201’s Potential Mechanism to Reduce the Incidence of OIC

OIC is a common side effect of opioid therapy. It is widely believed that the binding of opioids to the peripheral μ-opioid receptors in the GI tract is the primary cause of OIC. The opioid activation of these μ-opioid receptors impairs GI tract functioning, resulting in numerous adverse symptoms, including constipation.

A possible mechanism by which KP201 may reduce the incidence of OIC is illustrated by the graphic below. KP201 has a very low binding affinity to the μ-opioid receptors in the GI tract and we believe that after oral administration it does not effectively interact with them while it is present in the GI tract. We believe that due to KP201’s low binding affinity to the μ-opioid receptors it is absorbed largely intact into the intestinal enterocytes, which are the cells lining the small intestine. We believe that KP201 is then completely hydrolyzed down to hydrocodone and the ligand in the enterocytes, which then release the hydrocodone directly into the blood stream. Consequently, we believe that the intestinal μ-opioid receptors never come in contact with significant concentrations of hydrocodone, thus potentially reducing the incidence of OIC.

KP201 Possible Mechanism for Reduced Incidence of OIC

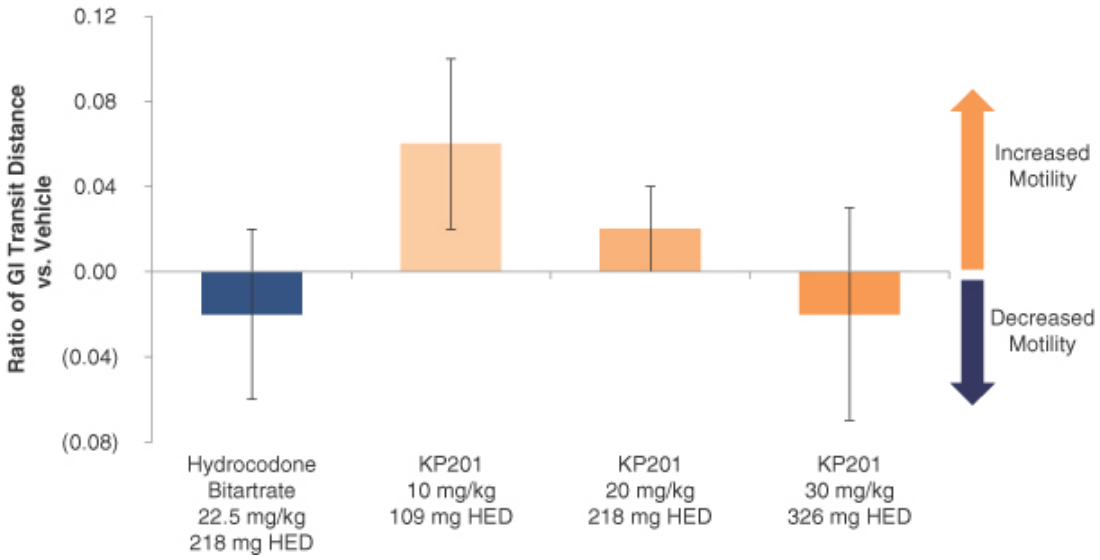


We first observed data suggesting that KP201 might not have the same GI side effects as conventional opioids in a preclinical study in dogs. We then conducted a GI motility study, using a

commonly accepted study design, in which three groups of ten rats each were dosed with KP201 at 10 mg/kg, 20 mg/kg and 30 mg/kg, respectively, equivalent to human equivalent doses of 109 mg, 218 mg and 326 mg, respectively. Another group of ten rats received 22.5 mg/kg of hydrocodone bitartrate and a fifth group of ten rats was administered the study vehicle, which was water. Each of the rats was then fed a meal of activated charcoal and, 30 minutes later, we determined GI motility by measuring the distances the charcoal meals had traveled through the rats' GI tracts. The doses of KP201 and hydrocodone bitartrate administered to the rats, when converted to human equivalent doses, were very high compared to normal therapeutic doses typically administered to human patients. We believe this is because normal human therapeutic doses administered one time to rats typically have no effect on the rats' GI motility during the brief monitoring time period of such a study.

As indicated in the chart below, rather than observing a reduction in rat GI motility from KP201 exposure, as would be expected from conventional opioids, GI motility was increased in the two lower doses. We believe this observation may be explained by the fact that the KP201 doses represented such large concentrations inside the rats that the KP201 acted like dietary fiber and increased GI motility. We believe the decrease in GI motility observed in the KP201 highest dose, 30mg/kg, cohort may reflect that the KP201 was being metabolized first into hydrocodone and then into hydromorphone at systemic levels that were so high that the hydromorphone, a potent cause of constipation, had some exposure to the peripheral μ-opioid receptors in the GI tract and thus had a detectable negative effect on GI motility. Because a much larger portion of a dose of hydrocodone is converted to hydromorphone in rats, as compared to humans, we believe this effect will be unlikely to occur in humans, particularly at human therapeutic doses. We believe this preclinical data warrants further investigation of KP201 in humans with regard to its potential to reduce the incidence of OIC.

KP201 GI Motility Study in Rats



Note: HED refers to human equivalent dose.

Ongoing Clinical Trials

In September 2014, we initiated two human abuse liability trials and a human GI motility trial, each intended to generate data that we expect to include in our 505(b)(2) NDA submission. We believe the data from these two human abuse liability trials, together with the data from the tamper-resistant extraction studies we are conducting, if the data is positive, will be instrumental in obtaining the FDA's Tier 1, 2 and 3 abuse-deterrent language in the KP201/APAP product label, if it is approved. We believe the data from our human GI motility trial, if positive, may help us to obtain a KP201/APAP product label description of preserved GI motility. This trial will not be sufficient to support a comparative claim.

KP201/APAP Oral Human Abuse Liability Trial. The primary objective of this human abuse liability trial is to compare the pharmacodynamic, or drug likability, effects, exposure levels and safety of KP201/APAP compared to Norco after oral administration. Pharmacodynamics refers to the biochemical and physiological effects of a drug on the human body and the purpose of a drug likeability analysis is to assess how probable it is that the drug will be attractive to abusers. This is a single-center, randomized, double-blind, active- and placebo-controlled, crossover trial. We expect to randomize approximately 60 subjects into the treatment phase of the trial with 56 assumed completers. We expect data from this trial in the first quarter of 2015.

KP201/APAP Intranasal Human Abuse Liability Trial. The primary objective of this human abuse liability trial is to assess the relative pharmacodynamic, or drug likability, effects, exposure levels and safety of KP201/APAP compared to Norco after crushing and intranasal administration. This trial will include a dose selection phase and the main trial. The dose selection phase will evaluate escalating doses of each drug to identify the maximum tolerated dose of both KP201/APAP and Norco in order to select a dose that is well tolerated and produces robust responses on pharmacodynamic measures for use in the main trial. This is a single-center, randomized, double-blind trial. In the dose selection phase, subjects will be screened and qualified in order to enroll eight subjects per cohort with potentially up to six cohorts. The subjects will be randomized into the main trial with 40 assumed completers. We expect data from this trial in the second quarter of 2015.

KP201/APAP Human GI Motility Trial. The purpose of this trial is to explore GI motility by measuring the total digestive tract transit time in subjects receiving KP201/APAP compared to Norco. In addition, other clinical side effects commonly associated with opioid use will be explored and compared. The primary objective of this trial is to evaluate the total digestive tract transit time in hours, defined as the time from swallowing a wireless data-transmitting motility capsule until it reaches the anus, in subjects receiving orally administered KP201/APAP compared to Norco. There are multiple secondary objectives, including measuring side effects and the proportion of subjects who report adverse events. This is a single center, randomized, double-blind, two-way crossover trial that will enroll approximately 50 healthy volunteers who report good GI function and normal bowel habits. Activated, calibrated, wireless data-transmitting motility capsules and data receivers will be administered to participating subjects at about 4 hours after treatment initiation for each in-patient period. We expect data from this trial in the first quarter of 2015.

Ongoing Tamper-Resistant Extraction Studies

In the fourth quarter of 2014, we will began two tamper-resistant extraction studies, each intended to generate data that we expect to include in our 505(b)(2) NDA submission. We believe the data from these two studies, if it is positive, together with the data from our two human abuse liability trials described above, will be instrumental in obtaining the FDA's Tier 1, 2 and 3 abuse-deterrent language in the KP201/APAP product label, if it is approved.

KP201/APAP In Vitro Extraction and Hydrolysis Study. This study is designed based on the draft FDA guidance published in January 2013. KP201/APAP tablets will be evaluated for the possibility and potential for individuals to extract KP201 from its tablet formulation and to convert extracted KP201 to hydrocodone by following a protocol we developed with input and advice from the FDA. The goal of the study is to evaluate the ease with which the abuse-deterrent properties of KP201 can be defeated or compromised as compared to Norco.

KP201/APAP IV Formulation Assessment Study. This study is also designed based on the draft FDA guidance. KP201/APAP tablets will be evaluated following a protocol we developed with input and advice from the FDA to determine the properties of KP201 that reduce the likelihood of IV abuse as compared to Norco. The study will evaluate the amount of KP201, APAP and hydrocodone detected in an extract suitable for IV abuse that has been derived from KP201 tablets. KP201/APAP tablet extracts suitable for IV abuse will also be evaluated for their effects during simulated injections into human plasma and into whole blood.

KP511/ER

Overview

KP511/ER is our ER formulation of KP511, our NME prodrug of hydromorphone, which we are developing for the treatment of moderate to severe pain. KP511/ER is designed to be an abuse-deterrent opioid product and may have a reduced side-effect profile as compared to approved ER hydromorphone products. KP511 combines hydromorphone with one or more ligands and can be formulated in both IR and ER dosage forms. KP511 is designed not to release its hydromorphone component until it is metabolized in the GI tract following oral administration. We believe KP511 is highly tamper-resistant and is stable under conditions that can potentially defeat many formulation-based abuse-deterrent technologies.

We plan to seek approval of KP511/ER under the 505(b)(2) NDA pathway. Based on our preclinical data, we believe that KP511 may release hydromorphone after oral administration in humans in a manner that is comparable to the appropriate approved hydromorphone drug. We anticipate reporting human proof-of-concept data for KP511/ER in 2016.

Market Opportunity

Oral hydromorphone products are typically used to treat acute and chronic moderate to severe pain. IMS estimates that in 2013 there were 3.5 million dispensed prescriptions of hydromorphone in the United States. Currently, there are no hydromorphone products approved in the United States with an abuse-deterrent label.

Key Product Features of KP511/ER

Based on our preclinical data, we believe KP511/ER, if approved by the FDA, may have valuable product features and provide significant benefits to patients, physicians and society when compared to FDA-approved hydromorphone products:

- ***Molecular-based abuse-deterrent technology*.** In order to evaluate the abuse-deterrent qualities of KP511, we conducted preclinical studies in rats to compare the exposure to hydromorphone following intranasal and IV administration of KP511 as compared to intranasal and IV administration of hydromorphone hydrochloride. We observed significantly lower concentrations of hydromorphone following intranasal and IV administration of KP511 compared to intranasal and IV administered hydromorphone hydrochloride. KP511/ER incorporates our LAT platform technology to create its abuse-deterrent properties at the molecular level and, based on our preclinical studies, we believe it may have abuse-deterrent characteristics similar to KP201/APAP.
- ***Oral overdose protection.*** In our preclinical studies, we observed that hydromorphone blood levels in rats increased more slowly and to a lesser extent after oral administration of increasing excessively large doses of KP511, as compared to increasing equimolar oral doses of hydromorphone hydrochloride. We also observed that the study animals began dying from the increasing excessively large oral doses of hydromorphone hydrochloride, but never died from an equimolar oral dose of KP511. Based on the molecular structure of KP511, we believe it is possible that the metabolic processes of releasing hydromorphone from the prodrug become saturated at excessively large oral doses. If confirmed by further studies, this could potentially mean that KP511 and KP511/ER may reduce the risk of oral overdosing by a mechanism that is inherent in the prodrug molecule itself.

- ***Potential to reduce the incidence of OIC*.** Based on our preclinical studies and our understanding of KP511's μ-opioid receptor pharmacology, we believe KP511/ER will not effectively interact with the μ-opioid receptors in the GI tract, and we believe that KP511/ER may have the potential to reduce the incidence of OIC as compared to other oral hydromorphone products for pain.
- ***Composition-of-matter patent protection*.** KP511/ER is protected by a U.S. composition-of-matter patent on KP511 that will expire, after utilizing all appropriate patent term adjustments but excluding possible patent term extensions, in 2032. Our patent strategy is focused primarily on key geographic market opportunities, and, as of September 30, 2014, patent applications covering KP511 were pending in the United States and an additional 25 foreign jurisdictions.
- ***No generic equivalent product.*** KP511 is an NME prodrug that we believe will be given a new chemical name, which would mean that there would be no generic equivalent product for KP511/ER in most states, making substitution difficult at the pharmacy.

KP415

Overview

KP415 is our NME prodrug of methylphenidate, which we are developing for the treatment of ADHD. The ADHD market is largely served by the stimulant products methylphenidate and amphetamine. KP415 is designed to be a controlled release, or CR, abuse-deterrent methylphenidate product.

We plan to seek approval of KP415 under the 505(b)(2) NDA pathway. We anticipate reporting human proof-of-concept data for KP415 in 2016.

Market Opportunity

We believe the ADHD market would be receptive to new branded drugs that have improved properties when compared to current treatments. We believe a new product in the form of a prodrug that has abuse-deterrent features and a more consistent controlled release drug delivery mechanism may provide a preferred treatment option in this large market segment. While methylphenidate is available as a generic product, the branded formulations, Concerta, Focalin and Ritalin, accounted for sales of $743 million in 2013.

Key Product Features of KP415

Based on our preclinical data, we believe KP415, if approved by the FDA, may have valuable product features and provide significant benefits to patients, physicians, and society when compared to other FDA-approved and widely prescribed methylphenidate products:

- ***Molecular-based abuse-deterrent technology*.** In order to evaluate the abuse-deterrent qualities of KP415, we conducted preclinical studies in rats to compare the exposure to methylphenidate following intranasal and IV administration of KP415 as compared to intranasal and IV administration of methylphenidate hydrochloride. We observed significantly lower concentrations of methylphenidate following intranasal and IV administration of KP415 compared to intranasal and IV administered methylphenidate hydrochloride. KP415 incorporates our LAT platform technology to create its abuse-deterrent properties at the molecular level and, based on our preclinical studies, we believe it will have abuse-deterrent characteristics similar to KP201/APAP.
- ***Once-daily dosing.*** Pharmacokinetic data from our preclinical studies suggest that the time to maximum plasma concentration of methylphenidate after oral administration of KP415 is approximately three times longer than that after oral administration of currently marketed IR methylphenidate. We believe this inherent CR attribute of KP415's molecular structure may allow for convenient, once-daily dosing.

- ***Amenable to patient-friendly formulations.*** Although we believe our prodrug, KP415, possesses abuse-deterrent properties at the molecular level similar to KP201, our preclinical data shows that KP415 is highly water soluble and we believe it could ultimately be used in a variety of patient-friendly dosage forms such as oral thin film, orally dissolving tablets, chewable tablets and liquids as a means of increasing patient convenience and compliance.
- ***Composition-of-matter patent protection***. A composition-of matter-patent has been filed for KP415 with the United States Patent and Trademark Office, or USPTO. Our patent strategy is focused primarily on key geographic market opportunities, and, as of September 30, 2014, KP415 patent filings were pending in an additional 25 foreign jurisdictions. In addition, subject to further discussions with the FDA, KP415 may be eligible for new chemical entity, or NCE, exclusivity status, which could allow for five years of U.S. market exclusivity following the FDA's approval of an NDA for KP415.
- ***No generic equivalent product.*** KP415 is an NME prodrug that we believe will be given a new chemical name, which would mean that there would be no generic equivalent product for KP415 in most states, making substitution difficult at the pharmacy.

Other Product Candidates

We are using our LAT platform technology to develop other product candidates in pain and CNS indications. One example is KP606/ER an ER formulation of KP606, our NME prodrug of oxycodone, which we are developing for the treatment of moderate to severe pain. KP606/ER is designed to be an ER abuse-deterrent opioid product and may have a reduced incidence of OIC as compared to OxyContin. KP606 combines oxycodone with one or more ligands. We have currently formulated an IR dosage of KP606 and plan to develop an ER dosage of KP606.

We plan to seek approval of KP606/ER under the 505(b)(2) FDA pathway. We anticipate reporting human proof-of-concept data for KP606/ER in 2017.

Another example is KP303, our NME prodrug of quetiapine, which is currently in preclinical development and which we are developing for the potential treatment of CNS disorders such as schizophrenia, bipolar disorder and major depressive disorder.

Our Intellectual Property

Our intellectual property strategy includes seeking composition-of-matter patents, among other patents, for our NME prodrugs and product candidates and conjugates of our NME prodrugs while also protecting as trade secrets our LAT platform technology, the process by which we identify, screen, evaluate and select ligands to be conjugated with parent drugs to create our NME prodrugs. Our current prodrugs all consist of an approved parent drug and one or more ligands that we have selected using our LAT platform technology. The parent drug and ligand or ligands together constitute an NME and thus may be eligible for composition-of-matter patent protection, among other patent protections, in the United States and abroad.

To date, we have internally developed all of our intellectual property, including our LAT platform technology, and have not in-licensed or otherwise acquired our technology, patents, show-how or know-how from an outside source. As of September 30, 2014, we owned nine issued patents or allowed patent applications within the United States, and an additional 14 foreign patents covering our NME prodrugs or product candidates. The terms of the nine issued U.S. patents or allowed U.S. patent applications extend to various dates between 2030 and 2032. The term of our overall domestic and foreign patent portfolio related to our NME prodrugs and product candidates, including patent term adjustments but excluding possible patent term extensions, extend to various dates between 2030 and 2032, if pending patent applications in each of our patent families issue as patents. As of September 30, 2014, we owned seven pending patent applications under active prosecution in the United States, and an additional 79 pending foreign patent applications covering our NME prodrugs and product candidates.

Our issued and granted patents provide protection in jurisdictions that include the United States, Australia, Canada, China, Colombia, Japan, Kazakhstan, Mexico, New Zealand, Russia, Ukraine and South Africa.

In 2013, the USPTO issued a composition-of-matter patent covering KP201, which will expire, after utilizing all appropriate patent term adjustments but excluding possible patent term extensions, in 2031. Further, there are granted or recently allowed compositions-of-matter patents covering KP201 in Australia, Canada, China, Columbia, Japan, Kazakhstan, Mexico, New Zealand, Russia, Ukraine and South Africa. In addition, a U.S. patent application covering KP201-related compositions-of-matter is pending and patent applications covering KP201 are currently pending in the United Arab Emirates, Brazil, Belarus, Canada, Chile, Costa Rica, Cuba, Egypt, Europe, Hong Kong, Indonesia, Israel, India, South Korea, Malaysia, Oman, Philippines, Singapore, South Africa, Thailand and Vietnam.

In August 2014, the USPTO issued a composition-of-matter patent covering KP511, which will expire, after utilizing all appropriate patent term adjustments but excluding possible patent term extensions, in 2032. We have also filed composition-of-matter patent applications for KP415 and KP511 in the United States and in Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Egypt, Europe, India, Israel, Indonesia, Japan, South Korea, Kazakhstan, Mexico, Malaysia, New Zealand, Philippines, Russia, Singapore, Thailand, Ukraine, Vietnam and South Africa. We anticipate filing additional patent applications for our NME prodrug product candidates.

We also depend upon the skills, knowledge and experience of our scientific and technical personnel, as well as that of our advisors, consultants and other contractors. To help protect our LAT platform technology as well as any proprietary know-how and show-how that is not patentable, we rely on trade secret protection and confidentiality agreements to protect our interests. To this end, we generally require our employees, consultants and advisors to enter into confidentiality agreements prohibiting the disclosure of confidential information and, in some cases, requiring disclosure and assignment to us of the ideas, developments, discoveries and inventions important to our business.

Commercialization

Currently, we do not have any internal sales, marketing or distribution infrastructure. Because many of our product candidates may have large potential market opportunities, and may require significant marketing resources, we may conclude that the most appropriate approach to their commercialization, if they receive regulatory approval, will involve forming a commercial collaboration or strategic relationship, or consummating some type of strategic transaction, with a larger pharmaceutical marketing organization. Alternatively, we may conclude that building our own focused sales and marketing organization will be most appropriate, perhaps as part of a co-promotional arrangement, or some other form of collaboration. As we get closer to potential approval of our product candidates, we will work to identify and implement the commercialization strategies that we conclude are the most desirable with regard to the specific product candidates.

Competition

Our industry is characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. We will face competition and potential competition from a number of sources, including pharmaceutical and biotechnology companies, specialty pharmaceutical companies, generic drug companies, drug delivery companies and academic and research institutions. We believe the key competitive factors that will affect the development and commercial success of our product candidates include their potential degree of abuse deterrence, differentiated side-effect profiles, onset of action, bioavailability, therapeutic efficacy, convenience of dosing, safety, tolerability and cost. Many of our potential competitors have substantially greater financial, technical and human resources than we do, as well as more experience in the development of product candidates, obtaining FDA and other regulatory approvals of products and the commercialization of those products. Consequently, our

competitors may develop abuse-deterrent or other products for the treatment of acute moderate to moderately severe pain, or for other indications we are pursuing or may pursue in the future, and such competitors' products may be more effective, better tolerated and less costly than our product candidates. Our competitors may also be more successful in manufacturing and marketing their products than we are. We will also face competition in recruiting and retaining qualified personnel and establishing clinical trial sites and patient enrollment in clinical trials.

If approved, our abuse-deterrent opioid product candidates will face competition from commercially available branded and generic opioid drugs, including hydrocodone, hydromorphone, oxycodone, fentanyl, morphine, oxymorphone and methadone, as well as other marketed non-opioid products for the treatment of pain, and potential competition from opioid and non-opioid products for the treatment of pain that are currently in clinical development. In addition, our product candidates will face competition from approved and abuse-deterrent labeled opioid drugs and potential competition from abuse-deterrent opioid drugs that are currently in clinical development. We may compete with multiple companies that have developed and are developing abuse-deterrent technologies that may be applied to a variety of drugs, including those being developed for the treatment of acute moderate to moderately severe pain as well as for other indications that we are pursuing or may pursue in the future. If approved, our abuse-deterrent opioid product candidates may face competition from opioid products or abuse-deterrent technologies from companies including Actavis plc, Acura Pharmaceuticals, Inc., Cara Therapeutics, Inc., Collegium Pharmaceutical, Inc., Depomed, Inc., DURECT Corporation, Egalet Corporation, Elite Pharmaceuticals, Inc., Endo International plc, Grünenthal Group, IntelliPharmaceutics International Inc., Mallinckrodt plc, Mylan Inc., Nektar Therapeutics, Pain Therapeutics, Inc., Pfizer Inc., Purdue Pharma L.P., Signature Pharmaceuticals, Teva Pharmaceutical Industries Ltd., Trevena Inc. and UCB S.A.

If approved, KP201/APAP will compete against currently marketed branded and generic IR hydrocodone/APAP combination products indicated for the treatment of acute moderate to moderately severe pain. Some of these currently marketed products include AbbVie's Vicodin, Actavis's Norco, Shionogi's Xodol and UCB Pharma's Lortab, in addition to multiple other branded and generic hydrocodone/APAP combination products. In addition, if approved, KP201/APAP will face potential competition from any abuse-deterrent IR hydrocodone/APAP combination products that are currently in or may enter into clinical development.

If approved, our KP415 product candidate will compete against branded and generic products marketed by companies including Actavis plc, Eli Lilly and Company, Johnson & Johnson, Mallinckrodt plc, Novartis AG, Noven Therapeutics, Shionogi Inc., Shire plc, Teva Pharmaceutical Industries Ltd. and UCB S.A. In addition, if approved, our KP415 product candidate will face potential competition from any abuse-deterrent or other products for the treatment of ADHD that are currently in or which may enter into clinical development.

If approved, our KP303 product candidate will compete against branded and generic products for the treatment of CNS disorders such as schizophrenia, bipolar disorder and major depressive disorder marketed by companies including Astrazeneca PLC, Lupin Pharmaceuticals, Inc., Pfizer Inc., Roxanne Laboratories, Inc. and Teva Pharmaceutical Industries Ltd., as well as potentially compete with products for the treatment of these CNS disorders that are currently in or may enter into clinical development.

Manufacturing

Our manufacturing strategy is to rely on contract manufacturers to produce our NME prodrug product candidates for clinical trials and, if approved, drug product for commercial sale. We currently have no manufacturing facilities and limited personnel with manufacturing experience. We rely on a third-party manufacturer to produce KP201/APAP for our clinical trials and we expect to continue to rely on third-party manufacturers to manufacture commercial quantities of KP201/APAP if and when

we receive approval for marketing from the FDA. We also rely on Johnson Matthey Inc., or JMI, a third-party manufacturer, to produce the bulk quantities of KP201 required for the manufacture of the KP201/APAP used in our clinical trials under a supply agreement. We plan to continue to rely on JMI to manufacture commercial quantities of KP201 used in production of KP201/APAP for sale in the United States if and when we receive approval for marketing by the FDA. We expect to contract with third-party manufacturers for the manufacture of KP201 and KP201/APAP outside the United States if and when we receive approval for marketing by regulatory authorities outside the United States.

Our current and any future third-party manufacturers, their facilities and all lots of drug substance and drug products used in our clinical trials are required to be in compliance with current good manufacturing practices, or cGMPs. The cGMP regulations include requirements relating to organization of personnel, buildings and facilities, equipment, control of components and drug product containers and closures, production and process controls, packaging and labeling controls, holding and distribution, laboratory controls, records and reports, and returned or salvaged products. The manufacturing facilities for our products must meet cGMP requirements and FDA satisfaction before any product is approved and we can manufacture commercial products. Our current and any future third-party manufacturers are also subject to periodic inspections of facilities by the FDA and other authorities, including procedures and operations used in the testing and manufacture of our products to assess our compliance with applicable regulations.

Failure to comply with statutory and regulatory requirements subjects a manufacturer to possible legal or regulatory action, including refusal to approve pending applications, license suspension or revocation, withdrawal of an approval, imposition of a clinical hold or termination of clinical trials, warning letters, untitled letters, cyber letters, modification of promotional materials or labeling, product recalls, product seizures or detentions, refusal to allow imports or exports, total or partial suspension of production or distribution, debarment, injunctions, fines, consent decrees, corporate integrity agreements, refusals of government contracts and new orders under existing contracts, exclusion from participation in federal and state healthcare programs, restitution, disgorgement or civil or criminal penalties, including fines and imprisonments.

Supply Agreement with Johnson Matthey

Under the supply agreement, JMI has agreed to supply us with all of the KP201 necessary for clinical trials and commercial sale for a price equal to JMI's manufacturing cost and to provide process optimization and development services for KP201. In exchange, we issued shares of our common stock to JMI, provided that the commercial supply arrangement for KP201 would be exclusive to them in the United States, and we agreed to pay them royalties on the net sales on the commercial sale of KP201/APAP, if approved by the FDA. The percentage royalty rate ranges from the high teens at low volumes to the mid-single digits at higher volumes.

Under the supply agreement, we retain sole ownership of KP201 and are required to use commercially reasonable efforts to develop and to pursue FDA marketing approval of KP201 and KP201/APAP. We are responsible for product development, including formulation, preclinical studies and clinical trials, and for regulatory approval, quality assurance and commercialization. Each quarter, both we and JMI are responsible for using commercially reasonable efforts to obtain a quota from the DEA for the production of the KP201 active pharmaceutical ingredient, or API, and for KP201.

We are responsible for all costs of any KP201 manufactured during a specified validation process for KP201. After completion of the validation process, but prior to the commercial launch of KP201, JMI will manufacture the registration batches of KP201 at a price to be negotiated. Failure to agree upon this pricing would result in JMI supplying the registration batches to us free of charge and we would pay JMI an additional royalty payment on such batches. The percentage royalty rate ranges from the

low teens at low volumes to the low single digits at higher volumes. After the commercial launch of KP201/APAP, JMI will manufacture and supply KP201 at a price equal to JMI's fully allocated manufacturing cost.

We must purchase all of our U.S. KP201 needs from JMI and JMI cannot supply KP201 to other companies. After the commercial launch of KP201, JMI is required to identify a secondary manufacturing site and qualify and validate that site for the production of KP201.

The term of the supply agreement extends as long as we hold a valid and enforceable patent for KP201 or until the tenth anniversary of KP201's commercial launch, whichever date is later. Upon the expiration of such term, the agreement will automatically renew for a period of two years unless either party provides 12 months prior notice of its intent not to renew.

Third-Party Reimbursement

Sales of pharmaceutical products depend in significant part on the availability of coverage and adequate reimbursement by third-party payors, such as state and federal governmental authorities, including those that administer the Medicare and Medicaid programs, managed care organizations and private insurers. Decisions regarding the extent of coverage and amount of reimbursement to be provided for each of our product candidates will be made on a plan-by-plan basis. One payor's determination to provide coverage for a product does not assure that other payors will also provide coverage, and adequate reimbursement, for the product. Each third-party payor determines whether or not it will provide coverage for a drug, what amount it will pay providers for the drug, and on what tier of its formulary the drug will be placed. These decisions are influenced by the existence of multiple drug products within a therapeutic class and the net cost to the plan, including the amount of the prescription price, if any, rebated by the drug's manufacturer. Typically, generic versions of drugs are placed in a preferred tier. The position of a drug on the formulary generally determines the co-payment that a patient will need to make to obtain the drug and can strongly influence the adoption of a drug by patients and physicians. Patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Patients are unlikely to use our products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our products. Additionally, a third-party payor's decision to provide coverage for a drug does not imply that an adequate reimbursement rate will be approved. Also, third-party payors are developing increasingly sophisticated methods of controlling healthcare costs. As a result, coverage, reimbursement and placement determinations are complex and are often the subject of extensive negotiations between the payor and the owner of the drug.

Unless we enter into a strategic collaboration under which our collaborator assumes responsibility for seeking coverage and reimbursement for a given product, we will be responsible for negotiating coverage, reimbursement and placement decisions for our product candidates. Coverage, reimbursements and placement decisions for a new product are based on many factors including the coverage, reimbursement and placement of already marketed branded drugs for the same or similar indications, the safety and efficacy of the new product, availability of generics for similar indications, the clinical need for the new product and the cost-effectiveness of the product.

Within the Medicare program, as self-administered drugs, KP201/APAP, KP415, KP511/ER and KP606/ER would be reimbursed under the expanded prescription drug benefit known as Medicare Part D. This program is a voluntary Medicare benefit administered by private plans that operate under contracts with the federal government. These plans develop formularies that determine which products are covered and what co-pay will apply to covered drugs. The plans have considerable discretion in establishing formularies and tiered co-pay structures, negotiating rebates with manufacturers and placing prior authorization and other restrictions on the utilization of specific products, subject to review by the Centers for Medicare and Medicaid Services, or CMS, for discriminatory practices. These Part D

plans negotiate discounts with drug manufacturers, which are passed on, in whole or in part, to each of the plan's enrollees through reduced premiums. Historically, Part D beneficiaries have been exposed to significant out-of-pocket costs after they surpass an annual coverage limit and until they reach a catastrophic coverage threshold. However, changes made by the Patient Protection and Affordable Care Act as amended by the Health Care Education and Reconciliation Act, or the ACA, will reduce this patient coverage gap, known as the "donut hole", by transitioning patient responsibility in that coverage range from 100% in 2010 to only 25% in 2020. To help achieve this reduction, pharmaceutical manufacturers are required to provide quarterly discounts of 50% off the negotiated price of branded drugs dispensed to Medicare Part D patients in the donut hole.

If a drug product is reimbursed by Medicare or Medicaid, pricing and rebate programs must comply with, as applicable, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 as well as the Medicaid rebate requirements of the Omnibus Budget Reconciliation Act of 1990, or the OBRA, and the Veterans Health Care Act of 1992, or the VHCA, each as amended. Among other things, the OBRA requires drug manufacturers to pay rebates on prescription drugs to state Medicaid programs and empowers states to negotiate rebates on pharmaceutical prices, which may result in prices for our future products that will likely be lower than the prices we might otherwise obtain. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply.

Third-party payors, including the U.S. government, continue to apply downward pressure on the reimbursement of pharmaceutical products. Also, the trend towards managed health care in the United States and the concurrent growth of organizations such as health maintenance organizations may result in lower reimbursement for pharmaceutical products. We expect that these trends will continue as these payors implement various proposals or regulatory policies, including various provisions of the recent health reform legislation that affect reimbursement of these products. There are currently, and we expect that there will continue to be, a number of federal and state proposals to implement controls on reimbursement and pricing, directly and indirectly.

Government Regulation

The FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries impose substantial requirements upon the clinical development, manufacture and marketing of pharmaceutical products. These agencies and other federal, state and local entities regulate research and development activities and the testing, manufacture, quality control, safety, effectiveness, labeling, storage, packaging, recordkeeping, tracking, approval, import, export, distribution, advertising and promotion of our products.

The process required by the FDA before product candidates may be marketed in the United States generally involves the following:

- nonclinical laboratory and animal tests that must be conducted in accordance with good laboratory practices, or GLPs;
- submission of an IND, which must become effective before clinical trials may begin;
- approval by an independent institutional review board, or IRB, for each clinical site or centrally before each trial may be initiated;
- adequate and well-controlled human clinical trials to establish the safety and efficacy of the proposed product candidate for its intended use, performed in accordance with good clinical practices, or GCPs;
- submission to the FDA of an NDA;
- satisfactory completion of an FDA advisory committee review, if applicable;
- pre-approval inspection of manufacturing facilities and selected clinical investigators for their compliance with cGMP and GCPs; and

- FDA approval of an NDA to permit commercial marketing for particular indications for use.

Prior to the commencement of marketing of controlled substances, the DEA must also determine the controlled substance schedule, taking into account the recommendation of the FDA.

The testing and approval process requires substantial time, effort and financial resources. Preclinical studies include laboratory evaluation of drug substance chemistry, pharmacology, toxicity and drug product formulation, as well as animal studies to assess potential safety and efficacy. Prior to commencing the first clinical trial with a product candidate, we must submit the results of the preclinical tests and preclinical literature, together with manufacturing information, analytical data and any available clinical data or literature, among other things, to the FDA as part of an IND. Some preclinical studies may continue even after the IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, raises safety concerns or questions about the conduct of the clinical trial by imposing a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. Submission of an IND may not result in FDA authorization to commence a clinical trial. A separate submission to the existing IND must be made for each successive clinical trial conducted during product development, as well as amendments to previously submitted clinical trials. Further, an independent IRB for each study site proposing to conduct the clinical trial must review and approve the plan for any clinical trial, its informed consent form and other communications to study subjects before the clinical trial commences at that site. The IRB must continue to oversee the clinical trial while it is being conducted, including any changes to the study plans. Regulatory authorities, an IRB or the sponsor may suspend or discontinue a clinical trial at any time on various grounds, including a finding that the subjects are being exposed to an unacceptable health risk, the clinical trial is not being conducted in accordance with the FDA's or the IRB's requirements, if the drug has been associated with unexpected serious harm to subjects, or based on evolving business objectives or competitive climate. Some studies also include a data safety monitoring board, which receives special access to unblinded data during the clinical trial and may advise us to halt the clinical trial if it determines that there is an unacceptable safety risk for subjects or other grounds, such as no demonstration of efficacy.

In general, for purposes of NDA approval, human clinical trials are typically conducted in three sequential phases that may overlap.

- *Phase 1*—Studies are initially conducted to test the product candidate for safety, dosage tolerance, structure-activity relationships, mechanism of action, absorption, metabolism, distribution and excretion in healthy volunteers or subjects with the target disease or condition. If possible, Phase 1 trials may also be used to gain an initial indication of product effectiveness.
- *Phase 2*—Controlled studies are conducted with groups of subjects with a specified disease or condition to provide enough data to evaluate the preliminary efficacy, optimal dosages and dosing schedule and expanded evidence of safety. Multiple Phase 2 clinical trials may be conducted to obtain information prior to beginning larger and more expensive Phase 3 clinical trials.
- *Phase 3*—These clinical trials are undertaken in larger subject populations to provide statistically significant evidence of clinical efficacy and to further test for safety in an expanded subject population at multiple clinical trial sites. These clinical trials are intended to establish the overall risk/benefit ratio of the product and provide an adequate basis for product labeling. These trials may be done globally to support global registrations so long as the global sites are also representative of the U.S. population and the conduct of the study at global sites comports with FDA regulations and guidance, such as compliance with GCPs.

In the case of a 505(b)(2) NDA, which is a marketing application in which sponsors may rely on investigations that were not conducted by or for the applicant and for which the applicant has not obtained a right of reference or use from the person by or for whom the investigations were conducted,

some of the above-described studies and preclinical studies may not be required or may be abbreviated. Bridging studies may be needed, however, to demonstrate the relevance of the studies that were previously conducted by other sponsors to the drug that is the subject of the marketing application.

The FDA may require, or companies may pursue, additional clinical trials after a product is approved. These so-called Phase 4 studies may be made a condition to be satisfied after approval. The results of Phase 4 studies can confirm the effectiveness of a product candidate and can provide important safety information.

Clinical trials must be conducted under the supervision of qualified investigators in accordance with GCP requirements, which includes the requirements that all research subjects provide their informed consent in writing for their participation in any clinical trial, and the review and approval of the study by an IRB. Investigators must also provide information to the clinical trial sponsors to allow the sponsors to make specified financial disclosures to the FDA. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, the trial procedures, the parameters to be used in monitoring safety and the efficacy criteria to be evaluated and a statistical analysis plan. Information about some clinical trials, including a description of the trial and trial results, must be submitted within specific timeframes to the National Institutes of Health, or NIH, for public dissemination on their ClinicalTrials.gov website.

The manufacture of investigational drugs for the conduct of human clinical trials is subject to cGMP requirements. Investigational drugs and active pharmaceutical ingredients imported into the United States are also subject to regulation by the FDA relating to their labeling and distribution. Further, the export of investigational drug products outside of the United States is subject to regulatory requirements of the receiving country as well as U.S. export requirements under the Federal Food, Drug and Cosmetic Act, or the FFDCA. Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and the IRB and more frequently if serious adverse events occur.

Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the product candidate as well as finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested, and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

505(b)(2) Approval Process

Section 505(b)(2) of the FFDCA, or 505(b)(2), provides an alternate regulatory pathway to FDA approval for new or improved formulations or new uses of previously approved drug products. Specifically, 505(b)(2) permits the filing of an NDA where at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference or use from the person by or for whom the investigations were conducted. The applicant may rely upon the FDA's prior findings of safety and effectiveness for an approved product that acts as the reference listed drug for purposes of a 505(b)(2) NDA. The FDA may also require 505(b)(2) applicants to perform additional studies or measurements to support any changes from the reference listed drug. The FDA may then approve the new product candidate for all or some of the labeled indications for which the referenced product has been approved, as well as for any new indication sought by the 505(b)(2) applicant.

Our current and anticipated product candidates are or will be based on already approved APIs in combination with a ligand. Accordingly, we expect to be able to rely on information from studies previously conducted by the companies that obtained approval for drugs containing such APIs.

Orange Book Listing

Section 505 of the FFDCA describes three types of marketing applications that may be submitted to the FDA to request marketing authorization for a new drug. A Section 505(b)(1) NDA is an application that contains full reports of investigations of safety and efficacy. A 505(b)(2) NDA is an application that contains full reports of investigations of safety and efficacy but where at least some of the information required for approval comes from investigations that were not conducted by or for the applicant and for which the applicant has not obtained a right of reference or use from the person by or for whom the investigations were conducted. This regulatory pathway enables the applicant to rely, in part, on the FDA's prior findings of safety and efficacy for an existing product, or published literature, in support of its application. Section 505(j) establishes an abbreviated approval process for a generic version of approved drug products through the submission of an abbreviated new drug application, or ANDA. An ANDA provides for marketing of a generic drug product that has the same active ingredients, dosage form, strength, route of administration, labeling, performance characteristics and intended use, among other things, to a previously approved product. ANDAs are termed "abbreviated" because they are generally not required to include preclinical and clinical data to establish safety and efficacy. Instead, generic applicants must scientifically demonstrate that their product is bioequivalent to, or performs in the same manner as, the innovator drug through *in vitro*, *in vivo*, or other testing. The generic version must deliver the same amount of active ingredients into a subject's bloodstream in the same amount of time as the innovator drug and can often be substituted by pharmacists under prescriptions written for the reference listed drug.

In seeking approval for a drug through an NDA, including a 505(b)(2) NDA, applicants are required to list with the FDA patents whose claims cover the applicant's product. Upon approval of an NDA, each of the patents listed in the application for the drug is then published in *Approved Drug Products with Therapeutic Equivalence Evaluations*, also known as the Orange Book. These products may be cited by potential competitors in support of approval of an ANDA or 505(b)(2) NDA.

Any applicant who files an ANDA seeking approval of a generic equivalent version of a drug listed in the Orange Book or a 505(b)(2) NDA referencing a drug listed in the Orange Book must certify to the FDA that (1) no patent information on the drug product that is the subject of the application has been submitted to the FDA; (2) such patent has expired; (3) the date on which such patent expires; or (4) such patent is invalid or will not be infringed upon by the manufacture, use or sale of the drug product for which the application is submitted. This last certification is known as a Paragraph IV certification. Generally, the ANDA or 505(b)(2) NDA cannot be approved until all listed patents have expired, except where the ANDA or 505(b)(2) NDA applicant challenges a listed patent through a paragraph IV certification. If the applicant does not challenge the listed patents or does not indicate that it is not seeking approval of a patented method of use, the ANDA or 505(b)(2) NDA application will not be approved until all of the listed patents claiming the referenced product have expired.

If the competitor has provided a Paragraph IV certification to the FDA, the competitor must also send notice of the Paragraph IV certification to the holder of the NDA for the reference listed drug and the patent owner once the application has been accepted for filing by the FDA. The NDA holder or patent owner may then initiate a patent infringement lawsuit in response to the notice of the Paragraph IV certification. The filing of a patent infringement lawsuit within 45 days of the receipt of a Paragraph IV certification prevents the FDA from approving the application until the earlier of 30 months from the date of the lawsuit, expiration of the patent, settlement of the lawsuit, a decision in the infringement case that is favorable to the applicant or such shorter or longer period as may be ordered by a court. This prohibition is generally referred to as the 30-month stay. In instances where an ANDA or 505(b)(2) NDA applicant files a paragraph IV certification, the NDA holder or patent owner regularly take action

to trigger the 30-month stay, recognizing that the related patent litigation may take many months or years to resolve. Thus, approval of an ANDA or 505(b)(2) NDA could be delayed for a significant period of time depending on the patent certification the applicant makes and the reference drug sponsor's decision to initiate patent litigation. The applicant may also elect to submit a statement certifying that its proposed label does not contain, or carves out, any language regarding the patented method-of-use rather than certify to a listed method-of-use patent.

Exclusivity

The FDA provides periods of regulatory exclusivity, which provides the holder of an approved NDA limited protection from new competition in the marketplace for the innovation represented by its approved drug for a period of three or five years following the FDA's approval of the NDA. Five years of exclusivity are available to NCEs. An NCE is a drug that contains no active moiety that has been approved by the FDA in any other NDA. An active moiety is the molecule or ion, excluding those appended portions of the molecule that cause the drug to be an ester, salt, including a salt with hydrogen or coordination bonds, or other noncovalent derivatives, such as a complex, chelate, or clathrate, of the molecule, responsible for the therapeutic activity of the drug substance. During the exclusivity period, the FDA may not accept for review or approve an ANDA or a 505(b)(2) NDA submitted by another company that contains the previously approved active moiety. An ANDA or 505(b)(2) application, however, may be submitted one year before NCE exclusivity expires if a Paragraph IV certification is filed.

If a product is not eligible for the NCE exclusivity, it may be eligible for three years of exclusivity. Three-year exclusivity is available to the holder of an NDA, including a 505(b)(2) NDA, for a particular condition of approval, or change to a marketed product, such as a new formulation for a previously approved product, if one or more new clinical trials, other than bioavailability or bioequivalence trials, was essential to the approval of the application and was conducted or sponsored by the applicant. This three-year exclusivity period protects against FDA approval of ANDAs and 505(b)(2) NDAs for the condition of the new drug's approval. As a general matter, three-year exclusivity does not prohibit the FDA from approving ANDAs or 505(b)(2) NDAs for generic versions of the original, unmodified drug product. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA; however, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and efficacy.

NDA Submission and Review by the FDA

Assuming successful completion of the required clinical and preclinical testing, among other items, the results of product development, including chemistry, manufacture and controls, nonclinical studies and clinical trials are submitted to the FDA, along with proposed labeling, as part of an NDA. The submission of an NDA requires payment of a substantial user fee to the FDA. These user fees must be filed at the time of the first submission of the application, even if the application is being submitted on a rolling basis. Fee waivers or reductions are available in some circumstances. One basis for a waiver of the application user fee is if the applicant employs fewer than 500 employees, including employees of affiliates, the applicant does not have an approved marketing application for a product that has been introduced or delivered for introduction into interstate commerce, and the applicant, including its affiliates, is submitting its first marketing application.

In addition, under the Pediatric Research Equity Act, or PREA, an NDA or supplement to an NDA for a new active ingredient, indication, dosage form, dosage regimen or route of administration must contain data that are adequate to assess the safety and efficacy of the drug for the claimed indications in all relevant pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval

of the product for use in adults or full or partial waivers from the pediatric data requirements. We are currently in discussions with the FDA regarding our PREA obligations.

The FDA must refer applications for drugs that contain active ingredients, including any ester or salt of the active ingredients, that have not previously been approved by the FDA to an advisory committee or provide in an action letter a summary of the reasons for not referring it to an advisory committee. The FDA may also refer drugs which present difficult questions of safety, purity or potency to an advisory committee. An advisory committee is typically a panel that includes clinicians and other experts who review, evaluate and make a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

The FDA reviews applications to determine, among other things, whether a product is safe and effective for its intended use and whether the manufacturing controls are adequate to assure and preserve the product's identity, strength, quality and purity. Before approving an NDA, the FDA will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities, including contract manufacturers and subcontracts, are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA will typically inspect one or more clinical trial sites to assure compliance with GCPs.

Once the FDA receives an application, it has 60 days to review the NDA to determine if it is substantially complete to permit a substantive review, before it accepts the application for filing. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA. The FDA's NDA review times may differ based on whether the application is a standard review or priority review application. The FDA may give a priority review designation to drugs that are intended to treat serious conditions and provide significant improvements in the safety or effectiveness of the treatment, diagnosis, or prevention of serious conditions. Under the goals and policies agreed to by the FDA under the Prescription Drug User Fee Act, or PDUFA, the FDA has set the review goal of ten months from the 60-day filing date to complete its initial review of a standard NDA for a NME and make a decision on the application. For non-NME standard applications, the FDA has set the review goal of ten months from the submission date to complete its initial review and to make a decision on the application. For priority review applications, the FDA has set the review goal of reviewing NME NDAs within six months of the 60-day filing date and non-NME applications within six months of the submission date. Such deadlines are referred to as the PDUFA date. The PDUFA date is only a goal and the FDA does not always meet its PDUFA dates. The review process and the PDUFA date may also be extended if the FDA requests or the NDA sponsor otherwise provides additional information or clarification regarding the submission.

Once the FDA's review of the application is complete, the FDA will issue either a Complete Response Letter, or CRL, or approval letter. A CRL indicates that the review cycle of the application is complete and the application is not ready for approval. A CRL generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA and may require additional clinical or preclinical testing, or other information or analyses in order for the FDA to reconsider the application. The FDA has the goal of reviewing 90% of application resubmissions in either two or six months of the resubmission date, depending on the kind of resubmission. Even with the submission of additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. If and when those conditions have been met to the FDA's satisfaction, the FDA may issue an approval letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications.

The FDA may delay or refuse approval of an NDA if applicable regulatory criteria are not satisfied, require additional testing or information and/or require post-marketing testing and surveillance to

monitor safety or efficacy of a product, or impose other conditions, including distribution restrictions or other risk management mechanisms. For example, the FDA may require a risk evaluation and mitigation strategy, or REMS, as a condition of approval or following approval to mitigate any identified or suspected serious risks and ensure safe use of the drug. The FDA may prevent or limit further marketing of a product, or impose additional post-marketing requirements, based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements, FDA notification and FDA review and approval. Further, should new safety information arise, additional testing, product labeling or FDA notification may be required.

FDA approval of any NDA submitted by us will be at a time the FDA chooses. Also, if regulatory approval of a product is granted, such approval may entail limitations on the indicated uses for which such product may be marketed or may include contraindications, warnings or precautions in the product labeling, including a black box warning. For instance, we expect that at least some of our product candidates would likely be required to carry black box warnings, including warnings regarding lethality if our oral tablets are prepared for injection and hepatotoxicity. For example, Norco carries a black box warning related to the APAP component and the risk of liver failure or injury. If the FDA requires a black box warning, we would also be subject to specified promotional restrictions, such as the prohibition of reminder advertisements. The FDA also may not approve the inclusion of labeling claims necessary for successful marketing. Once approved, the FDA may withdraw the product approval if compliance with pre- and post-marketing regulatory standards is not maintained or if problems occur after the product reaches the marketplace. In addition, the FDA may require Phase 4 post-marketing studies to monitor the effect of approved products, and may limit further marketing of the product based on the results of these post-marketing studies.

Post-approval Requirements

Any products manufactured or distributed by us pursuant to FDA approvals are subject to continuing regulation by the FDA, including manufacturing, periodic reporting, product sampling and distribution, advertising, promotion, drug shortage reporting, compliance with any post-approval requirements imposed as a conditional of approval such as Phase 4 clinical trials, REMS and surveillance, recordkeeping and reporting requirements, including adverse experiences.

After approval, most changes to the approved product, such as adding new indications or other labeling claims are subject to prior FDA review and approval. There also are continuing, annual user fee requirements for any approved products and the establishments at which such products are manufactured, as well as new application fees for supplemental applications with clinical data. Drug manufacturers and their subcontractors are required to register their establishments with the FDA and certain state agencies and to list their drug products, and are subject to periodic announced and unannounced inspections by the FDA and these state agencies for compliance with cGMPs and other requirements, which impose procedural and documentation requirements upon us and our third-party manufacturers. We cannot be certain that we or our present or future suppliers will be able to comply with the cGMP regulations and other FDA regulatory requirements.

Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented, or FDA notification. FDA regulations also require investigation and correction of any deviations from cGMPs and specifications, and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance.

Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with

regulatory requirements, may result in withdrawal of marketing approval, mandatory revisions to the approved labeling to add new safety information or other limitations, imposition of post-market studies or clinical trials to assess new safety risks, or imposition of distribution or other restrictions under a REMS program, among other consequences.

The FDA closely regulates the marketing and promotion of drugs. A company can make only those claims relating to safety and efficacy, purity and potency that are approved by the FDA. Physicians, in their independent professional medical judgment, may prescribe legally available products for uses that are not described in the product's labeling and that differ from those tested by us and approved by the FDA. We, however, are prohibited from marketing or promoting drugs for uses outside of the approved labeling.

In addition, the distribution of prescription pharmaceutical products, including samples, is subject to the Prescription Drug Marketing Act, or PDMA, which regulates the distribution of drugs and drug samples at the federal level, and sets minimum standards for the registration and regulation of drug distributors by the states. Both the PDMA and state laws limit the distribution of prescription pharmaceutical product samples and impose requirements to ensure accountability in distribution.

Moreover, the recently enacted Drug Supply Chain Security Act imposes new obligations on manufacturers of pharmaceutical products related to product and tracking and tracing. Among the requirements of this new legislation, manufacturers will be required to provide information regarding the drug products to individuals and entities to which product ownership is transferred, label drug product with a product identifier, and keep records regarding the drug product. The transfer of information to subsequent product owners by manufacturers will eventually be required to be done electronically. Manufacturers will also be required to verify that purchasers of the manufacturers' products are appropriately licensed. Further, under this new legislation, manufactures will have drug product investigation, quarantine, disposition, and notification responsibilities related to counterfeit, diverted, stolen, and intentionally adulterated products, as well as products that are the subject of fraudulent transactions or which are otherwise unfit for distribution such that they would be reasonably likely to result in serious health consequences or death.

Failure to comply with any of the FDA's requirements could result in significant adverse enforcement actions. These include a variety of administrative or judicial sanctions, such as refusal to approve pending applications, license suspension or revocation, withdrawal of an approval, imposition of a clinical hold or termination of clinical trials, warning letters, untitled letters, cyber letters, modification of promotional materials or labeling, product recalls, product seizures or detentions, refusal to allow imports or exports, total or partial suspension of production or distribution, debarment, injunctions, fines, consent decrees, corporate integrity agreements, refusals of government contracts and new orders under existing contracts, exclusion from participation in federal and state healthcare programs, restitution, disgorgement or civil or criminal penalties, including fines and imprisonment. Any of these sanctions could result in adverse publicity, among other adverse consequences.

Risk Evaluation and Mitigation Strategy (REMS)

The FDA has the authority to require a REMS to ensure the safe use of the drug. In determining whether a REMS is necessary, the FDA must consider the size of the population likely to use the drug, the seriousness of the disease or condition to be treated, the expected benefit of the drug, the duration of treatment, the seriousness of known or potential adverse events, and whether the drug is an NME. If the FDA determines a REMS is necessary, the drug sponsor must develop the REMS program, which the FDA reviews and approves. A REMS may be required for a single drug or an entire class of drugs.

A REMS may be required to include various elements, including, but not limited to, a medication guide or patient package insert, a communication plan to educate healthcare providers of the drug's risks, limitations on who may prescribe or dispense the drug, elements to assure safe use, or ETASU,

an implementation system, or other measures that the FDA deems necessary to assure the safe use of the drug. ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under specified circumstances, special monitoring, and the use of patient registries. In addition, the REMS must include a timetable to periodically assess the strategy. The FDA may also impose a REMS requirement on a drug already on the market if the FDA determines, based on new safety information, that a REMS is necessary to ensure that the drug's benefits outweigh its risks. The requirement for a REMS can materially affect the potential market and profitability of a drug.

Based upon currently approved product REMS programs and class-wide REMS programs, including the class-wide REMS programs for extended-release and long-acting opioid analgesics, we believe that most of our product candidates, if approved, may be subject to a REMS. Accordingly, we expect to have to take prescribed measures to ensure the safe use of our products, if they are approved.

DEA Regulation

Most of our product candidates, if approved, will be regulated as "controlled substances" as defined in the Controlled Substances Act of 1970, or CSA, and the DEA's implementing regulations, which establish registration, security, recordkeeping, reporting, storage, distribution, importation, exportation, inventory, quota and other requirements administered by the DEA. These requirements are directly applicable to us and also applicable to our contract manufacturers and to distributors, prescribers and dispensers of our product candidates. The DEA regulates the handling of controlled substances through a closed chain of distribution. This control extends to the equipment and raw materials used in their manufacture and packaging in order to prevent loss and diversion into illicit channels of commerce.

The DEA regulates controlled substances as Schedule I, II, III, IV or V substances. Schedule I substances by definition have no established medicinal use, and may not be marketed or sold in the United States. A pharmaceutical product may be listed as Schedule II, III, IV or V, with Schedule II substances considered to present the highest risk of abuse and Schedule V substances the lowest relative risk of abuse among such substances. Schedule II drugs are those that meet the following characteristics:

- the drug has a high potential for abuse;
- the drug has a currently accepted medical use in treatment in the United States or a currently accepted medical use with severe restrictions; and
- abuse of the drug may lead to severe psychological or physical dependence.

We expect that most of our product candidates will be listed by the DEA as Schedule II controlled substances under the CSA. Consequently, the importation of APIs for our product candidates, as well as the manufacture, shipping, storage, sales and use of the products, will be subject to a high degree of regulation. Schedule II drugs are subject to the strictest requirements for registration, security, recordkeeping and reporting. Also, distribution and dispensing of these drugs are highly regulated. For example, all Schedule II drug prescriptions must be signed by a physician, physically presented to a pharmacist and may not be refilled without a new prescription. Electronic prescriptions may also be permissible depending on the state, so long as the prescription complies with the DEA's requirements for electronic prescriptions.

Annual registration is required for any facility that manufactures, distributes, dispenses, imports or exports any controlled substance. The registration is specific to the particular location, activity and controlled substance schedule. For example, separate registrations are needed for import and manufacturing, and each registration will specify which schedules of controlled substances are authorized. Similarly, separate registrations are also required for separate facilities.

The DEA typically inspects a facility to review its security measures prior to issuing a registration and on a periodic basis. Security requirements vary by controlled substance schedule, with the most stringent requirements applying to Schedule I and Schedule II substances. Required security measures include background checks on employees and physical control of inventory through measures such as cages, surveillance cameras and inventory reconciliations. Records must be maintained for the handling of all controlled substances, and periodic reports made to the DEA, for example distribution reports for Schedule I and II controlled substances, Schedule III substances that are narcotics, and other designated substances. Reports must also be made for thefts or losses of any controlled substance, and to obtain authorization to destroy any controlled substance. In addition, special permits and notification requirements apply to imports and exports of narcotic drugs.

In addition, a DEA quota system controls and limits the availability and production of controlled substances in Schedule I or II. Distributions of any Schedule I or II controlled substance must also be accompanied by special order forms, with copies provided to the DEA. Because most of our product candidates are expected to be regulated as Schedule II controlled substances, they will be subject to the DEA's production and procurement quota scheme. The DEA establishes annually an aggregate quota for how much of a controlled substance may be produced in total in the United States based on the DEA's estimate of the quantity needed to meet legitimate scientific and medicinal needs. The limited aggregate amount of opioids and stimulants that the DEA allows to be produced in the United States each year is allocated among individual companies, which must submit applications annually to the DEA for individual production and procurement quotas. We and our contract manufacturers must receive an annual quota from the DEA in order to produce or procure any Schedule I or Schedule II substance for use in manufacturing of our product candidates. The DEA may adjust aggregate production quotas and individual production and procurement quotas from time to time during the year, although the DEA has substantial discretion in whether or not to make such adjustments. Our, or our contract manufacturers', quota of an active ingredient may not be sufficient to meet commercial demand or complete clinical trials. Any delay, limitation or refusal by the DEA in establishing our, or our contract manufacturers', quota for controlled substances could delay or stop our clinical trials or product launches, which could have a material adverse effect on our business, financial position and results of operations.

To enforce these requirements, the DEA conducts periodic inspections of registered establishments that handle controlled substances. Failure to maintain compliance with applicable requirements, particularly as manifested in loss or diversion, can result in administrative, civil or criminal enforcement action that could have a material adverse effect on our business, results of operations and financial condition. The DEA may seek civil penalties, refuse to renew necessary registrations, or initiate administrative proceedings to revoke those registrations. In some circumstances, violations could result in criminal proceedings.

Individual states also independently regulate controlled substances. We and our contract manufacturers will be subject to state regulation on distribution of these products, including, for example, state requirements for licensures or registration.

Other Healthcare Regulations

Our business activities, including but not limited to, research, sales, promotion, distribution, medical education and other activities following product approval will be subject to regulation by numerous regulatory and law enforcement authorities in the United States in addition to the FDA, including potentially the Department of Justice, the Department of Health and Human Services and its various divisions, including the CMS and the Health Resources and Services Administration, the Department of Veterans Affairs, the Department of Defense and state and local governments. Our business activities must comply with numerous healthcare laws, including those described below.

The federal Anti-Kickback Statute prohibits, among other things, any person or entity, from knowingly and willfully offering, paying, soliciting or receiving any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, to induce or reward, or in return for, the referral of an individual, or purchasing, leasing, ordering, or arranging for the purchase, lease or order of, any good, facility, item or service reimbursable under Medicare, Medicaid or other federal healthcare programs. The term remuneration has been interpreted broadly to include anything of value. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution. The exceptions and safe harbors are drawn narrowly and practices that involve remuneration that may be alleged to be intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances. Additionally, the ACA amended the intent requirement of the federal Anti-Kickback Statute, and some other healthcare criminal fraud statutes, so that a person or entity no longer needs to have actual knowledge of the Anti-Kickback Statute, or the specific intent to violate it, to have violated the statute. The ACA also provided that a violation of the federal Anti-Kickback Statute is grounds for the government or a whistleblower to assert that a claim for payment of items or services resulting from such violation constitutes a false or fraudulent claim for purposes of the False Claims Act.

The federal civil and criminal false claims laws, including the federal False Claims Act, prohibit, among other things, any person or entity from knowingly presenting, or causing to be presented, a false claim for payment to, or approval by, the federal government, including the Medicare and Medicaid programs, or knowingly making, using, or causing to be made or used a false record or statement material to a false or fraudulent claim or to avoid, decrease or conceal an obligation to pay money to the federal government.

We, and our business activities, are subject to the civil monetary penalties statute which imposes penalties against any person or entity who, among other things, is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent.

As a condition of Medicaid payment for prescription drugs, the Medicaid Drug Rebate statute requires manufacturers to calculate and report to CMS their Average Manufacturer Price, which is used to determine rebate payments shared between the states and the federal government and, for some multiple source drugs, Medicaid payment rates for the drug, and for drugs paid under Medicare Part B, to also calculate and report their average sales price, which is used to determine the Medicare Part B payment rate for the drug. Drugs that are approved under a biologics license application, or BLA, or an NDA, including a 505(b)(2) NDA, are subject to an additional requirement to calculate and report the manufacturer’s best price for the drug and inflation penalties which can substantially increase rebate payments. For BLA and NDA drugs, the Veterans Health Care Act requires manufacturers to calculate and report to the Department of Veterans Affairs a different price called the Non-Federal Average Manufacturing Price, offer the drugs for sale on the Federal Supply Schedule, and charge the government no more than a statutory price referred to as the Federal Ceiling Price, which includes an inflation penalty. A separate law requires manufacturers to pay rebates on these drugs when paid by the Department of Defense under its TRICARE Retail Pharmacy Program. Knowingly submitting false pricing information to the government creates potential False Claims Act liability.

The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of whether the payor is public or private,

knowingly and willfully embezzling or stealing from a health care benefit program, willfully obstructing a criminal investigation of a health care offense and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters. Additionally, the ACA amended the intent requirement of some of these criminal statutes under HIPAA so that a person or entity no longer needs to have actual knowledge of the statute, or the specific intent to violate it, to have committed a violation.

Additionally, federal Open Payments program, created under Section 6002 of the ACA and its implementing regulations, require some manufacturers of drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with specified exceptions) to report information related to specified payments or other transfers of value provided to physicians and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals and to report annually specified ownership and investment interests held by physicians and their immediate family members. Failure to submit timely, accurately and completely the required information for all payments, transfers of value and ownership or investment interests may result in civil monetary penalties of up to an aggregate of $150,000 per year and up to an aggregate of $1.0 million per year for "knowing failures." Covered manufacturers were required to begin collecting data on August 1, 2013 and submit reports on aggregate payment data to the government for the first reporting period (August 1, 2013—December 31, 2013) by March 31, 2014, and were required to report detailed payment data for the first reporting period and submit legal attestation to the completeness and accuracy of such data by June 30, 2014. Thereafter, manufacturers must submit reports by the 90th day of each subsequent calendar year. CMS released the data on a public website on September 30, 2014.

In addition, we may be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. The Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, imposes requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA's security standards directly applicable to business associates, independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions. In addition, state laws govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Many states have also adopted laws similar to each of the above federal laws, which may be broader in scope and apply to items or services reimbursed by any third-party payor, including commercial insurers.

Enforcement actions can be brought by federal or state governments or as "qui tam" actions brought by individual whistleblowers in the name of the government. Depending on the circumstances, failure to comply with these laws can result in penalties, including criminal, civil and/or administrative criminal penalties, damages, fines, disgorgement, debarment from government contracts, exclusion of products from reimbursement under government programs, refusal to allow us to enter into supply contracts, including government contracts, reputational harm, diminished profits and future earnings and the curtailment or restructuring of our operations, any of which could adversely affect our business.

Healthcare Reform Measures

The United States and some foreign jurisdictions are considering or have enacted a number of legislative and regulatory proposals designed to change the healthcare system in ways that could affect our ability to sell our products profitably. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives.

For example, in March 2010, the ACA was passed, which has the potential to substantially change health care financing by both governmental and private insurers, and to significantly affect the U.S. pharmaceutical industry. The ACA, among other things, subjected manufacturers to new annual fees and taxes for specified branded prescription drugs, increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program, expanded health care fraud and abuse laws, revised the methodology by which rebates owed by manufacturers to the state and federal government for covered outpatient drugs under the Medicaid Drug Rebate Program are calculated, imposed an inflation penalty on new formulations of drugs, extended the Medicaid Drug Rebate program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations, expanded the 340B program which caps the price at which manufacturers can sell covered outpatient pharmaceuticals to specified hospitals, clinics and community health centers, and provided incentives to programs that increase the federal government's comparative effectiveness research.

Other legislative changes have been proposed and adopted in the United States since the ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers up to 2% per fiscal year, which went into effect in April 2013 and will remain in effect through 2024 unless additional Congressional action is taken. In addition, in January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several categories of healthcare providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

The Foreign Corrupt Practices Act

The Foreign Corrupt Practices Act, or FCPA, prohibits any U.S. individual or business from paying, offering or authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with accounting provisions requiring the companies to maintain books and records that accurately and fairly reflect all transactions of the companies, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations.

Foreign Regulation

In addition to regulations in the United States, we will be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our products to the extent we choose to develop or sell any products outside of the United States. The approval process varies from country to country and the time may be longer or shorter than that required to obtain FDA approval. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from country to country.

Facilities

We occupy 7,800 square feet of headquarters office and laboratory space in Coralville, Iowa under a lease that expires in 2016 and we have the right to extend the term of the lease for an additional three years. We also maintain additional leased spaces in several locations, including Blacksburg, Virginia and Celebration, Florida. We believe that our facilities are adequate for our current needs.

Employees

As of September 30, 2014, we employed 14 full-time employees. We have never had a work stoppage, and none of our employees is represented by a labor organization or under any collective bargaining arrangements. We consider our employee relations to be good.

Legal Proceedings

We are currently party to a lawsuit against DeWaay Financial Network, L.L.C., or DFN, a financial advisor and one of our warrant holders. We instituted the lawsuit by filing a declaratory judgment action against DFN on September 13, 2013 in the Iowa District Court for Johnson County, Iowa. The lawsuit was subsequently removed to the Iowa District Court for Polk County, Iowa.

On June 6, 2011, we entered into an agreement with DFN, or the DFN agreement, pursuant to which we granted to DFN a purported right of first refusal to serve as our exclusive financial advisor for specified strategic transactions, including a sale of our company, private and public capital raising transactions, and joint ventures, licenses or similar transactions with respect to our product candidates, and we granted a purported right to receive, subject to specified conditions including non-exercise of such right of first refusal, a cash fee equal to the greater of $250,000 and 1.5% of the total consideration received by us, our affiliates and our equity owners and related to any such strategic transaction, in each case, irrespective of whether any such strategic transaction occurred during or after the term of the DFN agreement.

In the lawsuit, we are seeking a declaratory judgment finding invalid and unenforceable such purported right of first refusal and right to receive a cash fee related to any such strategic transaction. DFN filed an answer requesting that the court declare that such rights are valid and survive termination of the DFN agreement and counterclaims requesting that the court award damages to DFN, including a fee based upon the total consideration that we have received and in the future will receive under the Deerfield facility. Two former members of our board of directors joined the lawsuit as intervenors and a trial date for the matter has been scheduled for August 2015. We cannot predict the timing or outcome of this litigation. However, if it is determined that such purported right of first refusal or right to receive a cash fee related to any such strategic transaction are valid, we could be required to pay to DFN a portion of the consideration received in any such strategic transaction, including this offering and future capital raising transactions.

From time to time we are involved in legal proceedings arising in the ordinary course of business. We believe there is no other litigation pending that could have, individually or in the aggregate, a material adverse effect on our results of operations or financial condition.

MANAGEMENT

Directors and Executive Officers

The following table sets forth information concerning our directors and executive officers, including their ages as of September 30, 2014:

Name	Age	Position
Executive Officers:		
Travis C. Mickle, Ph.D.	41	President, Chief Executive Officer and Chairman
Gordon K. Johnson	63	Chief Operating Officer and Chief Financial Officer
Sven Guenther, Ph.D(1).	42	Executive Vice President Research and Development and Director
Christal M.M. Mickle(2)	35	Vice President Operations and Product Development, and Director
Other Key Employees:		
Christopher M. Lauderback	40	Vice President Commercial Operations
Non-Management Directors:		
Danny L. Thompson	50	Director
Matthew R. Plooster	33	Director
Richard W. Pascoe	50	Director
Joseph B. Saluri	47	Director
Jonathan S. Leff.	46	Director

(1) Dr. Guenther has informed us that he will resign from our board of directors prior to the effectiveness of the registration statement of which this prospectus is a part.
(2) Ms. Mickle has informed us that she will resign from our board of directors prior to the effectiveness of the registration statement of which this prospectus is a part.

Executive Officers

Travis C. Mickle, Ph.D.

Dr. Mickle is a co-founder of our company and has served as a member of our board of directors since our inception in 2006 and chairman of our board of directors since November 2014. Dr. Mickle served as our president and chief scientific officer from 2006 to October 2010, and has served as our president and chief executive officer since October 2010. Prior to founding our company, Dr. Mickle spent five years with New River Pharmaceuticals, a specialty pharmaceutical company, where he was a senior research scientist from 2001 to 2002, the director of chemistry from 2002 to 2003 and the director of drug discovery and CMC from 2003 to 2005. Dr. Mickle received his Ph.D. degree from the University of Iowa and his B.A. degree from Simpson College. Our board of directors believes that Dr. Mickle's leadership of our company since its inception, knowledge of our company as founder and experience with pharmaceutical companies provides him with the qualifications and skills to serve as a director of our company. Mr. Mickle is married to Christal M.M. Mickle.

Gordon K. Johnson

Mr. Johnson has served as our chief operating officer and chief financial officer since July 2013. Prior to joining our company, Mr. Johnson was the president and chief operating officer of Citius Pharmaceuticals, LLC, a specialty pharmaceutical company, from November 2012 to July 2013. From July 2012 to October 2012, Mr. Johnson was the executive vice president and chief business officer of Direct Markets, Inc., a technology company. From June 2011 to July 2012, Mr. Johnson served as a managing director of Rodman & Renshaw, LLC. Prior to that, he was a managing director at Piper Jaffray & Co. from 2007 to March 2011. Mr. Johnson received his M.B.A. degree from Harvard Business School and his B.A. degree from the University of Missouri.

Sven Guenther, Ph.D.

Dr. Guenther joined our company as our group leader of research in 2007 and has served as a member of our board of directors since April 2012 and as our executive vice president of research and development since May 2014. Prior to joining our company, Dr. Guenther served as a research scientist for New River Pharmaceuticals from 2003 to 2007. Dr. Guenther received his Ph.D. degree from the University of Iowa. Our board of directors believes that Dr. Guenther's scientific expertise provides him with the qualifications and skills to serve as a director of our company. Dr. Guenther has informed us that he will resign from our board of directors prior to the effectiveness of the registration statement of which this prospectus is a part.

Christal M.M. Mickle

Ms. Mickle is a co-founder of our company and has served as a member of our board of directors since 2006. Ms. Mickle has held a variety of positions at our company, including vice president and group leader from 2006 to 2008, secretary from 2006 to 2014, vice president of corporate affairs from 2008 to October 2013 and vice president operations and product development from October 2013 to the present. Ms. Mickle received her M.A. degree from the University of Virginia and her B.A. and B.S. degrees from Virginia Polytechnic Institute and State University. Our board of directors believes that Ms. Mickle's knowledge of our company as one of our co-founders and her scientific expertise provide her with the qualifications and skills to serve as a director of our company. Ms. Mickle is married to Travis C. Mickle, Ph.D. Ms. Mickle has informed us that she will resign from our board of directors prior to the effectiveness of the registration statement of which this prospectus is a part.

Other Key Employees

Christopher M. Lauderback

Dr. Lauderback has served as our vice president commercial operations since September 2012. Prior to joining our company, Dr. Lauderback was the senior manager of CMC scientific affairs at Sigma-Tau Pharmaceuticals, Inc., a specialty pharmaceutical company, from June 2009 to September 2012. From 2008 to 2009, Dr. Lauderback worked as the associate director, CMC development at AirBase Therapeutics, LLC. Dr. Lauderback started his career at New River Pharmaceuticals, where he served as a senior scientist from 2001 to 2006 and as the associate director, CMC development from 2006 to 2007. Dr. Lauderback received his Ph.D. degree from the University of Kentucky and his B.S. degree from Emory and Henry College.

Non-Management Directors

Danny L. Thompson

Mr. Thompson has served as a director of our company since 2007. He has served as the president of Success Bank since 1998 and the vice president of Garrett Bancshares, LTD since 2006. From 1984 to 1997, he has held several positions at Davis County Savings Bank including executive vice president of operations, trust officer and commercial loan officer. Mr. Thompson received his M.B.A. degree from St. Ambrose University and his B.A. degree from Buena Vista College. Our board of directors believes that Mr. Thompson's business experience provides him with the qualifications and skills to serve as a director of our company.

Matthew R. Plooster

Mr. Plooster has served as a director of our company since March 2011. Mr. Plooster co-founded Bridgepoint Merchant Banking, a division of Bridgepoint Holdings, LLC, where he has served as a managing principal since March 2012. Mr. Plooster also currently serves as a manager of Bridgepoint Investment Partners I, LLLP, a position he has held since May 2012. Previously, Mr. Plooster worked as an investment banker at DeWaay Investment Banking from October 2010 to March 2012, Morgan

Stanley from August 2009 to November 2009 and Deutsche Bank from 2004 to July 2009. Mr. Plooster received his Certificate in Business Excellence from Columbia Business School and his B.A. degree from the University of Chicago. Our board of directors believes that Mr. Plooster's experience as an investor in healthcare companies provides him with the qualifications and skills to serve as a director of our company.

Richard W. Pascoe

Mr. Pascoe has served as a director of our company since January 2014 and our lead independent director since November 2014. Since March 2013, Mr. Pascoe has served as the chief executive officer and on the board of directors of Apricus Biosciences, a specialty pharmaceutical company. From August 2008 to March 2013, Mr. Pascoe was the president and chief executive officer and a director of Pernix Sleep, Inc. (formerly known as Somaxon Pharmaceuticals, Inc.), a specialty pharmaceutical company. Prior to Pernix, from 2005 to 2008, Mr. Pascoe worked for ARIAD Pharmaceuticals, Inc., a specialty pharmaceutical company, where he was most recently senior vice president and chief operating officer. Mr. Pascoe received his B.S. degree from the United States Military Academy at West Point. Our board of directors believes that Mr. Pascoe's experience as a pharmaceutical company executive provides him with the qualifications and skills to serve as a director of our company.

Joseph B. Saluri

Mr. Saluri has served as a director of our company since January 2014. Mr. Saluri has served as vice president and general counsel for Stine Seed Company and its affiliates since July 1999. Prior to his employment with Stine, Mr. Saluri was an attorney and solicitor at law with Nicholas Critelli Associates, PC, in Des Moines, Iowa and London, England. Since May 2010, Mr. Saluri has served as a director of Newlink Genetics Corp, a public biopharmaceutical company. Mr. Saluri received his J.D. degree from Drake University Law School and his B.S.B.A. degree from Drake University. Our board of directors believes that Mr. Saluri's extensive legal background and experience in corporate management, finance and investor relations provides him with the qualifications and skills to serve as a director of our company.

Jonathan S. Leff

Mr. Leff has served as a director of our company since June 2014. Since January 2013, Mr. Leff has been a partner and chairman of the Deerfield Institute, focusing on venture capital and structured investments in biotechnology and pharmaceutical companies. Prior to joining Deerfield, from 1996 to 2012, Mr. Leff was a managing director at Warburg Pincus LLC, a global private equity investment firm. Mr. Leff served on the boards of directors of Allos Therapeutics, Inc. from 2005 to September 2012, Inspire Pharmaceuticals from 2007 to May 2011, Intermune, Inc. from 2000 to November 2012, Talon Therapeutics, Inc. from June 2010 to July 2013, ZymoGenetics, Inc. from 2002 to October 2010 and Sophiris Bio, Inc. from 2010 to 2012. Mr. Leff received his A.B. degree from Harvard University and his M.B.A. degree from Stanford University Graduate School of Business. Our board of directors believes that Mr. Leff's extensive experience investing in and serving on the boards of directors of public biotechnology and pharmaceutical companies provides him with the qualifications and skills to serve as a director of our company.

Board Composition

Our board of directors currently consists of eight members. Dr. Guenther and Ms. Mickle has each informed us that he or she will resign from our board of directors prior to the effectiveness of the registration statement of which this prospectus is a part. Dr. Mickle is the chairman of our board of directors and Mr. Pascoe is the lead independent director of our board of directors. As lead independent director, Mr. Pascoe presides over periodic meetings of our independent directors, serves as a liaison between our chairman and the independent directors and performs additional duties as our board of directors may otherwise determine or delegate from time to time. Each director is currently

elected to the board for a one-year term, to serve until the election and qualification of successor directors at the annual meeting of stockholders, or until the director's earlier removal, resignation or death.

Our directors were elected to and currently serve on the board pursuant to a voting agreement among us and several of our largest stockholders. This agreement will terminate upon the completion of this offering, after which there will be no further contractual obligations regarding the election of our directors.

In accordance with our amended and restated certificate of incorporation, which will be in effect upon the closing of this offering, our board of directors will be divided into three classes, each of which will consist, as nearly as possible, of one-third of the total number of directors constituting our entire board and which will serve staggered three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Our directors will be divided among the three classes as follows:

- Class I, which will consist of Travis C. Mickle, Ph.D. and Danny L. Thompson, and their term will expire at our first annual meeting of stockholders to be held after the completion of this offering;
- Class II, which will consist of Richard W. Pascoe and Jonathan S. Leff, and their term will expire at our second annual meeting of stockholders to be held after the completion of this offering; and
- Class III, which will consist of Matthew R. Plooster and Joseph B. Saluri, and their term will expire at our third annual meeting of stockholders to be held after the completion of this offering.

Our amended and restated bylaws, which will become effective upon completion of this offering, will provide that the authorized number of directors may be changed only by resolution approved by a majority of our board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors.

The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control.

Director Independence

Our board of directors has undertaken a review of the independence of the directors and considered whether any director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. As a result of this review, our board of directors has determined that Messrs. Thompson, Plooster, Pascoe, Saluri and Leff, representing five of our eight current directors, are "independent directors" as defined under NASDAQ rules.

Committees of the Board of Directors

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee, each of which has the composition and responsibilities described below. From time to time, the board may establish other committees to facilitate the management of our business.

Audit Committee

Our audit committee reviews our internal accounting procedures and consults with and reviews the services provided by our independent registered public accountants. Our audit committee consists of three directors, Danny L. Thompson, Richard W. Pascoe and Joseph B. Saluri. Mr. Thompson is the chairman of the audit committee and our board of directors has determined that Mr. Thompson is an "audit committee financial expert" as defined by SEC rules and regulations. Our board of directors has determined that each of Messrs. Thompson, Pascoe and Saluri are independent directors under NASDAQ listing rules and under Rule 10A-3 under Securities Exchange Act of 1934, as amended, or the Exchange Act. We intend to continue to evaluate the requirements applicable to us and we intend to comply with future requirements to the extent that they become applicable to our audit committee. The principal duties and responsibilities of our audit committee include:

- appointing and retaining an independent registered public accounting firm to serve as independent auditor to audit our financial statements, overseeing the independent auditor's work and determining the independent auditor's compensation;
- approving in advance all audit services and non-audit services to be provided to us by our independent auditor;
- establishing procedures for the receipt, retention and treatment of complaints received by us regarding accounting, internal accounting controls, auditing or compliance matters, as well as for the confidential, anonymous submission by our employees of concerns regarding questionable accounting or auditing matters;
- reviewing and discussing with management and our independent auditor the results of the annual audit and the independent auditor's review of our quarterly financial statements; and
- conferring with management and our independent auditor about the scope, adequacy and effectiveness of our internal accounting controls, the objectivity of our financial reporting and our accounting policies and practices.

Compensation Committee

Our compensation committee reviews and determines the compensation of all our executive officers. Our compensation committee consists of three directors, Matthew R. Plooster, Jonathan S. Leff and Richard W. Pascoe, each of whom is a non-employee member of our board of directors as defined in Rule 16b-3 under the Exchange Act. Mr. Plooster is the chairman of the compensation committee. Our board of directors has determined that the composition of our compensation committee satisfies the applicable independence requirements under, and the functioning of our compensation committee complies with the applicable requirements of, stock exchange listing rules and SEC rules and regulations. We intend to continue to evaluate and intend to comply with all future requirements applicable to our compensation committee. The principal duties and responsibilities of our compensation committee include:

- establishing and approving, and making recommendations to the board of directors regarding, performance goals and objectives relevant to the compensation of our chief executive officer, evaluating the performance of our chief executive officer in light of those goals and objectives and setting, or recommending to the full board of directors for approval, the chief executive officer's compensation, including incentive-based and equity-based compensation, based on that evaluation;
- setting the compensation of our other executive officers, based in part on recommendations of the chief executive officer;
- exercising administrative authority under our stock plans and employee benefit plans;
- establishing policies and making recommendations to our board of directors regarding director compensation;
- reviewing and discussing with management the compensation discussion and analysis that we may be required from time to time to include in SEC filings; and

- preparing a compensation committee report on executive compensation as may be required from time to time to be included in our annual proxy statements or annual reports on Form 10-K filed with the SEC.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee consists of three directors, Joseph B. Saluri, Matthew R. Plooster and Jonathan S. Leff. Mr. Saluri is the chairman of the nominating and corporate governance committee. Our board of directors has determined that the composition of our nominating and corporate governance committee satisfies the applicable independence requirements under, and the functioning of our nominating and corporate governance committee complies with the applicable requirements of, stock exchange listing standards and SEC rules and regulations. We will continue to evaluate and will comply with all future requirements applicable to our nominating and corporate governance committee. The nominating and corporate governance committee's responsibilities include:

- assessing the need for new directors and identifying individuals qualified to become directors;
- recommending to the board of directors the persons to be nominated for election as directors and to each of the board's committees;
- assessing individual director performance, participation and qualifications;
- developing and recommending to the board corporate governance principles;
- monitoring the effectiveness of the board and the quality of the relationship between management and the board; and
- overseeing an annual evaluation of the board's performance.

Code of Business Conduct and Ethics for Employees, Executive Officers and Directors

Effective upon completion of this offering, we will adopt a Code of Business Conduct and Ethics, or the Code of Conduct, applicable to all of our employees, executive officers and directors. Following the completion of this offering, the Code of Conduct will be available on our website at *www.kempharm.com*. The nominating and corporate governance committee of our board of directors will be responsible for overseeing the Code of Conduct and must approve any waivers of the Code of Conduct for employees, executive officers and directors. We expect that any amendments to the Code of Conduct, or any waivers of its requirements, will be disclosed on our website.

Compensation Committee Interlocks and Insider Participation

None of our directors who currently serve as members of our compensation committee is, or has at any time during the past year been, one of our officers or employees. None of our executive officers currently serves, or in the past year has served, as a member of the board of directors or compensation committee of any other entity that has one or more executive officers serving on our board of directors or compensation committee.

Non-Employee Director Compensation

We have not historically paid cash retainers or other compensation with respect to service on our board of directors, except for reimbursement of direct expenses incurred in connection with attending meeting of the board or committees. We have at times granted stock options to some of our non-employee directors under our existing incentive stock plan, or our 2007 Plan.

In January 2014, we entered into services agreements with each of Mr. Pascoe and Mr. Saluri upon their appointment to our board of directors. Under these agreements, we will pay to each of Mr. Pascoe and Mr. Saluri a cash stipend for service on the board of directors and for service, if applicable, on the compensation committee and the nominating and corporate governance committee. If they serve as the chairman of the compensation committee or the nominating and corporate

governance committee, they will receive an additional stipend for such service. These stipends are payable in four equal quarterly installments on the last day of each quarter. The stipends paid to each of Mr. Pascoe and Mr. Saluri for service on the board of directors and for service on the compensation committee and the nominating and corporate governance committee are as follows:

	Member Annual Service Stipend	Chairman Additional Annual Service Stipend
Board of directors	$ 25,000	$ –
Compensation committee	1,500	5,000
Nominating and corporate governance committee	1,500	2,500

In addition, under these services agreements, each of Mr. Pascoe and Mr. Saluri received an option to purchase 55,000 shares upon joining our board of directors at an exercise price of $0.78 per share. Further, on the date of each annual meeting of stockholders, each of Mr. Pascoe and Mr. Saluri will receive an option to purchase 25,000 shares of our common stock. The exercise price of these options will equal the fair market value of our common stock on the date of grant. All shares subject to vesting under these option grants will vest in full and become immediately exercisable if the holder is removed without cause or resigns upon our request without cause.

We expect that our board of directors will adopt a director compensation policy for non-employee directors to be effective following the completion of this offering.

2013 Director Compensation Table

The following table sets forth information regarding compensation earned for service on our board of directors during the year ended December 31, 2013 by our non-employee directors. Dr. Mickle, our president and chief executive officer, and Ms. Mickle, our vice president operations and product development, are also directors but do not receive any additional compensation for their service as directors. Dr. Mickle's and Ms. Mickle's compensation as executive officers is set forth below under "Executive Compensation—Summary Compensation Table." Dr. Guenther, our executive vice president research and development, is a director but not a named executive officer. As Dr. Guenther does not receive any additional compensation for his service as a director, he is not included in the table below.

Name	Fees earned or paid in cash ($)	Option Awards[2] ($)
Danny L. Thompson	31,500[1]	8,766
Matthew R. Plooster	–	–
Richard W. Pascoe	–	–
Joseph B. Saluri	–	–
Jonathan S. Leff	–	–

(1) Represents a retroactive stipend awarded by our board of directors in July 2014 for Mr. Thompson's service on our board of directors and compensation committee during the year ended December 31, 2013.

(2) This column reflects the full grant date fair value for options granted during the year as measured pursuant to ASC Topic 718 as stock-based compensation in our financial statements. Unlike the calculations contained in our financial statements, this calculation does not give effect to any estimate of forfeitures related to service-based vesting but assumes that the director will perform the requisite service for the award to vest in full. The assumptions we used in valuing options are described in Note 11 to our audited financial statements included in this prospectus.

(3) The table below shows the aggregate number of option awards outstanding for each of our non-employee directors as of December 31, 2013:

Name	Aggregate Option Awards Outstanding (#)
Danny L. Thompson	175,000(1)

(1) As of December 31, 2013, 150,000 shares underlying these options were vested and the remaining 25,000 shares vest upon the 2014 annual stockholder meeting.

EXECUTIVE COMPENSATION

Our chief executive officer and our two other most highly compensated executive officers for the year ended December 31, 2013 are listed below:

- Travis C. Mickle, Ph.D., our president and chief executive officer;
- Gordon K. Johnson, our chief operating officer and chief financial officer; and
- Christal M.M. Mickle, our vice president operations and product development.

We refer to these executive officers as our named executive officers.

2013 Summary Compensation Table

The following table presents the compensation awarded to, earned by or paid to each of our named executive officers for the year ended December 31, 2013.

Name and Principal Position	Salary ($)	Bonus ($)(1)	Option Awards ($)(2)	All Other Compensation ($)(3)	Total ($)
Travis C. Mickle, Ph.D. president and chief executive officer	234,000	75,000	–	10,365	319,365
Gordon K. Johnson(4) chief operating officer and chief financial officer	107,938	–	241,508	7,662	357,108
Christal M.M. Mickle vice president operations and product development	141,795	14,000	–	6,016	161,811

(1) The amounts reflect the discretionary bonus paid in June 2014 for performance during 2013, as discussed further below under "—Narrative to Summary Compensation Table—Annual Bonus."
(2) The amounts reflect the full grant date fair value for awards granted during 2013. The grant date fair value was computed in accordance with ASC Topic 718, *Compensation—Stock Compensation*. Unlike the calculations contained in our financial statements, this calculation does not give effect to any estimate of forfeitures related to service-based vesting, but assumes that the executive will perform the requisite service for the award to vest in full. The assumptions we used in valuing options are described in note 11 to our audited financial statements included in this prospectus.
(3) See "—Narrative to Summary Compensation Table—Other Compensation" for a description of the items in this column.
(4) Mr. Johnson became an executive officer of our company in July 2013.

Narrative to Summary Compensation Table

We review compensation annually for all employees, including our executives. In setting executive base salaries and bonuses and granting equity incentive awards, we consider compensation for comparable positions in the market, the historical compensation levels of our executives, individual performance as compared to our expectations and objectives, our desire to motivate our employees to achieve short- and long-term results that are in the best interests of our stockholders, and a long-term commitment to our company. We do not target a specific competitive position or a specific mix of compensation among base salary, bonus or long-term incentives.

The compensation committee of our board of directors has historically determined our executives' compensation. Our compensation committee typically reviews and discusses management's proposed

compensation with the chief executive officer for all executives other than the chief executive officer. Based on those discussions and its discretion, the compensation committee then recommends the compensation for each executive officer. Our compensation committee, without members of management present, discusses and ultimately approves the compensation of our executive officers.

Annual Base Salary

Our named executive officers' base salaries are reviewed periodically by our board of directors, and adjustments may be made upon the recommendations of the compensation committee. In July 2013, we entered into an employment agreement with Mr. Johnson under which his annual base salary was established at $275,000. Pursuant to their respective employment agreements, upon the closing of the Series D redeemable convertible preferred stock financing in June 2014, the annual base salaries for Dr. Mickle, Mr. Johnson and Ms. Mickle increased to $400,000, $325,000 and $190,000, respectively. In addition, pursuant to Mr. Johnson's employment agreement, Mr. Johnson's annual base salary will increase to $400,000 upon the completion of this offering.

Annual Bonus

Our board of directors and compensation committee may make special cash bonus awards in their discretion. In June 2014, our compensation committee awarded Ms. Mickle a discretionary cash bonus of $28,000 in recognition of her services provided in the last six months of 2012, the year ended December 31, 2013 and the first six months of 2014. In June 2014, our compensation committee recommended and, in July 2014, our board of directors approved, a discretionary cash bonus to Dr. Mickle of $150,000 in recognition of his services in the last six months of 2012, the year ended December 31, 2013 and the first six months of 2014. These bonus amounts, to the extent they were in recognition for Mr. Mickle's and Ms. Mickle's performance during 2013, are reflected in the "Bonus" column of the Summary Compensation Table above for 2013.

Long-Term Incentives

Our 2007 Plan authorizes us to make grants to eligible recipients of non-qualified stock options, incentive stock options and other stock-based awards. All of our awards under this plan have been in the form of stock options.

We typically grant stock options at the start of employment to each executive and our other employees. Through 2013, we have not maintained a practice of granting additional equity on an annual basis, but we have retained discretion to provide additional targeted grants in appropriate circumstances.

We award stock options on the date the compensation committee approves the grant. We set the option exercise price and grant date fair value based on our per-share valuation on the date of grant.

In July 2013, in connection with the commencement of Mr. Johnson's employment with us, our board of directors committee approved the grant of an option to Mr. Johnson to purchase 600,000 shares of our common stock. In June 2014, pursuant to Mr. Johnson's employment agreement, we granted Mr. Johnson a fully vested option to purchase 100,000 shares of our common stock upon the closing of the Deerfield facility. Each of these options has an exercise price of $0.78 per share. All shares subject to vesting under these option grants will vest in full and become immediately exercisable upon the closing of a sale or other change in control of our company. In addition, pursuant to Mr. Johnson's employment agreement, we will grant Mr. Johnson (a) an option to purchase up to 400,000 shares of our common stock upon the closing of a fundraising transaction, (b) an option to purchase up to 300,000 shares of our common stock upon the closing of this offering, (c) an option to purchase up to 500,000 shares of our common stock upon our receipt of a strategic partnership payment and (iv) 300,000 shares of our common stock upon a sale or other change of control transaction.

Other Compensation

We provided a reimbursement of $3,500 for legal expenses incurred by Mr. Johnson during the negotiation of his employment agreement during 2013.

Other amounts shown in the "All Other Compensation" column in the Summary Compensation Table relate to company contributions to the 401(k) plan and premiums we paid for life insurance policies on behalf of the named executive officer.

Except for the benefits described above, we do not provide perquisites or personal benefits to our named executive officers. We do, however, pay the premiums for medical and dental insurance for all of our employees, including our named executive officers.

Employment Arrangements and Potential Payments upon Termination of Employment

In July 2013, we entered into an employment agreement with Mr. Johnson under which he serves as our chief operating officer and chief financial officer. Under this agreement, upon Mr. Johnson is eligible to receive severance benefits in specified circumstances.

In the event that we terminate Mr. Johnson without cause or he resigns for good reason, Mr. Johnson will be entitled to receive an amount equal to 12 months of his annual base salary, less applicable deductions, payable in accordance with our normal payroll schedule, except that we will pay such severance in a lump sum on the first pay day immediately following the effective date of termination if such termination of employment occurs upon or within one year following a sale that constitutes a "change in control event" as defined under Section 409A of the Internal Revenue Code of 1986, as amended, or the Code. In the event that we terminate Mr. Johnson without cause or he resigns for good reason, and a specified minimum debt raise, sale or a fundraising transaction occurs, or a specified strategic partnership payment is made within 60 days following the date of termination, Mr. Johnson will be entitled to receive a bonus payment and an option grant, as specified in his agreement. In the event that we terminate Mr. Johnson with cause, Mr. Johnson resigns without good reason, or the employment is terminated due to mutual agreement, death or disability, then Mr. Johnson will not be entitled to receive severance benefits.

The following definitions have been adopted in Mr. Johnson's employment agreement:

- "cause" means (a) Mr. Johnson performed an act or acts of willful and material malfeasance or misconduct with respect to the performance of his duties and responsibilities as an employee and executive officer or under the agreement that results in material harm to us that remains uncorrected for 15 days after receipt of written notice, (b) Mr. Johnson's continued failure to devote his full business time and attention and his best efforts to the faithful performance of his material duties and responsibilities (other than a failure resulting from disability) that remains uncorrected for 15 days after receipt of written notice, (c) Mr. Johnson's material breach of any material provision of the agreement that remains uncorrected for 15 days after receipt of written notice, (d) the commission of an act of fraud, embezzlement, misappropriation, or personal dishonesty against us (which, if proven, would constitute a felony) or (e) the conviction, or plea of *nolo contendere*, to a crime constituting a felony; and
- "good reason" means (a) material diminution by us of Mr. Johnson's authority, duties or responsibilities the duration of which is greater than 15 days and which is not the result of his acts or omissions which constitute cause, (b) a material change in the geographic location at which Mr. Johnson must perform services under the agreement, (c) a material diminution in his base salary which is not the result of his acts or omissions which constitute cause or (d) any action or inaction that constitutes a material breach by us of the agreement, including our failure to pay any amounts due to Mr. Johnson or our failure to obtain from a successor the express assumption of the agreement.

We previously entered into employment agreements with Dr. Mickle and Ms. Mickle in March 2007, which did not contain any severance benefits. In May 2014, we entered into new employment agreements with Dr. Mickle and Ms. Mickle, under which Dr. Mickle serves as our president and chief executive officer and Ms. Mickle serves as our vice president of operations and product development. Under these agreements, upon the execution of a release of claims, Dr. Mickle and Ms. Mickle are eligible to receive severance benefits in specified circumstances.

In the event that we terminate Dr. Mickle without cause or he resigns for good reason, Dr. Mickle will be entitled to receive (a) an amount equal to 18 months of his annual base salary, less applicable deductions, payable in accordance with our normal payroll schedule, (b) a pro rata bonus award payable on the first regularly scheduled pay day following the 60th day after his termination, (c) 18 months of continued health coverage and (d) full vesting of his outstanding equity awards, except that if such termination occurs within 60 days before, upon or within one year following a sale that constitutes a "change in control event" as defined under the Code, then Dr. Mickle will be entitled to receive his 18 month salary continuation and his target annual bonus in one lump sum payment on the first regularly scheduled pay day following the 60th day after his termination. In the event that we terminate Dr. Mickle with cause, Dr. Mickle resigns without good reason, or his employment is terminated due to mutual agreement, death or disability, then Dr. Mickle will not be entitled to receive severance benefits.

In the event that we terminate Ms. Mickle without cause or she resigns for good reason, Ms. Mickle will be entitled to receive (a) an amount equal to 12 months of her annual base salary, less applicable deductions, payable in accordance with our normal payroll schedule, (b) a pro rata bonus award payable on the first regularly scheduled pay day following the 60th day after her termination, (c) 12 months of continued health coverage and (d) full vesting of her outstanding equity awards, except that if such termination occurs within 60 days before, upon or within one year following a sale that constitutes a "change in control event" as defined under the Code, then Ms. Mickle will be entitled to receive her 12 month salary continuation in one lump sum payment on the first regularly scheduled pay day following the 60th day after her termination. In the event that we terminate Ms. Mickle with cause, Ms. Mickle resigns without good reason, or her employment is terminated due to mutual agreement, death or disability, then Ms. Mickle will not be entitled to receive severance benefits.

The following definitions have been adopted in Dr. Mickle's and Ms. Mickle's employment agreements:

- "cause" means (a) executive is convicted of, or pleads nolo contendere to, a crime constituting a misdemeanor involving dishonesty or moral turpitude or any crime constituting a felony, (b) executive neglects, refuses or fails to perform executive's material duties, (c) executive commits a material act of dishonesty or otherwise engages in or is guilty of gross negligence or willful misconduct in the performance of executive's duties or (d) executive materially breaches the provisions of any written non-competition, non-disclosure or non-solicitation agreement, or any other agreement with us; and
- "good reason" means (a) material diminution by us of the executive's authority, duties or responsibilities the duration of which is greater than 15 days and which is not the result of his acts or omissions which constitute cause, (b) a material change in the geographic location at which the executive must perform services under the agreement, (c) a material diminution in his base salary which is not the result of his acts or omissions which constitute cause or (d) any action or inaction that constitutes a material breach by us of the agreement, including our failure to pay any amounts due to the executive or our failure to obtain from a successor the express assumption of the agreement.

We expect to enter into amended and restated employment agreements with each of our executive officers prior to the closing of this offering.

Outstanding Equity Awards at End of 2013

The following table provides information about outstanding stock options held by each of our executive officers at December 31, 2013. All of these options were granted under our 2007 Plan.

	Option Awards				
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable(1)	Number of Securities Underlying Unexercised Unearned Options (#)(1)	Option Exercise Price ($)	Option Expiration Date
Travis C. Mickle, Ph.D.	–		400,000(2)	0.78	08/17/2022
Gordon K. Johnson	150,000	450,000(3)		0.78	07/09/2023
Christal M.M. Mickle		–	200,000(4)	0.78	08/17/2022

(1) All shares subject to vesting under these option grants will vest in full and become immediately exercisable immediately upon the closing of a sale or other change in control of our company.
(2) This option vests as follows: 300,000 shares will vest upon a liquidation event for stockholders and 100,000 shares will vest upon the completion of an opioid induced constipation study for KP201.
(3) This option vests as follows: 25% of the total shares underlying this option vested on July 10, 2013 and the remaining 75% of the shares underlying the option vest thereafter in three equal annual installments through July 10, 2016.
(4) This option vests as follows: 100,000 shares will vest upon the completion of an opioid induced constipation study for KP201 and 100,000 shares will vest upon the filing of an NDA.

Pension Benefits

Our named executive officers did not participate in, or otherwise receive any benefits under, any pension or retirement plan sponsored by us during 2013.

Nonqualified Deferred Compensation

Our named executive officers did not participate in, or otherwise receive any benefits under, any nonqualified deferred compensation plan sponsored by us during 2013.

Equity Incentive Plans

2014 Equity Incentive Plan

Our board of directors has adopted, and we expect our stockholders will approve, prior to the completion of this offering our 2014 Equity Incentive Plan, or our 2014 Plan. We do not expect to issue equity awards under our 2014 Plan until after the completion of this offering. No awards have been granted and no shares of our common stock have been issued under our 2014 Plan. Our 2014 Plan will provide for the grant of incentive stock options within the meaning of Section 422 of the Code to our employees and our parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options, restricted stock awards, restricted stock unit awards, stock appreciation rights, performance stock awards and other forms of stock compensation to our employees, including officers, consultants and directors. Our 2014 Plan will also provide for the grant of performance cash awards to our employees, consultants and directors.

Authorized Shares

The maximum number of shares of our common stock that may be issued under our 2014 Plan is 17,000,000 shares. The number of shares of our common stock reserved for issuance under our 2014 Plan will automatically increase on January 1 of each year, for a period of ten years, from January 1, 2015 continuing through January 1, 2024, by 4.0% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year, or a lesser number of shares as may be

determined by our board of directors. The maximum number of shares that may be issued pursuant to the exercise of incentive stock options under the 2014 Plan is 102,000,000. The aggregate maximum number of shares subject to awards granted during a single fiscal year to any non-employee director, taken together with any cash fees paid to such non-employee director during the fiscal year, cannot exceed $500,000 in total value, calculating the value of any such awards based on the grant date fair value of such awards for financial reporting purposes and excluding the value of any dividend equivalent payments paid pursuant to any award granted in a previous fiscal year.

Shares issued under our 2014 Plan may be authorized but unissued or reacquired shares of our common stock. Shares subject to stock awards granted under our 2014 Plan that expire or terminate without being exercised in full, or that are paid out in cash rather than in shares, will not reduce the number of shares available for issuance under our 2014 Plan. Additionally, shares issued pursuant to stock awards under our 2014 Plan that we repurchase or that are forfeited, as well as shares reacquired by us as consideration for the exercise or purchase price of a stock award or to satisfy tax withholding obligations related to a stock award, will become available for future grant under our 2014 Plan.

Administration

Our board of directors, or a duly authorized committee thereof, has the authority to administer our 2014 Plan. Our board of directors has delegated its authority to administer our 2014 Plan to our compensation committee under the terms of the compensation committee's charter. Our board of directors may also delegate to one or more of our officers the authority to (a) designate employees other than officers to receive specified stock awards and (b) determine the number of shares of our common stock to be subject to such stock awards. Subject to the terms of our 2014 Plan, the administrator has the authority to determine the terms of awards, including recipients, the exercise price or strike price of stock awards, if any, the number of shares subject to each stock award, the fair market value of a share of our common stock, the vesting schedule applicable to the awards, together with any vesting acceleration, the form of consideration, if any, payable upon exercise or settlement of the stock award and the terms and conditions of the award agreements for use under our 2014 Plan.

The administrator has the power to modify outstanding awards under our 2014 Plan. Subject to the terms of our 2014 Plan, the administrator has the authority to reprice any outstanding option or stock appreciation right, cancel and re-grant any outstanding option or stock appreciation right in exchange for new stock awards, cash or other consideration, or take any other action that is treated as a repricing under generally accepted accounting principles, with the consent of any adversely affected participant.

Section 162(m) Limits

No participant may be granted stock awards covering more than 25,500,000 shares of our common stock under our 2014 Plan during any calendar year pursuant to stock options, stock appreciation rights and other stock awards whose value is determined by reference to an increase over an exercise price or strike price of at least 100% of the fair market value of our common stock on the date of grant. Additionally, no participant may be granted in a calendar year a performance stock award covering more than 25,500,000 shares of our common stock or a performance cash award having a maximum value in excess of $5,000,000 under our 2014 Plan. These limitations enable us to grant awards that will be exempt from the $1,000,000 limitation on the income tax deductibility of compensation paid per covered executive officer imposed by Section 162(m) of the Code.

Performance Awards

Our 2014 Plan permits the grant of performance-based stock and cash awards that may qualify as performance-based compensation that is not subject to the $1,000,000 limitation on the income tax deductibility of compensation paid per covered executive officer imposed by Section 162(m) of the Code. To enable us to grant performance-based awards that will qualify, our compensation committee can structure such awards so that the stock or cash will be issued or paid pursuant to such award only following the achievement of specified pre-established performance goals during a designated performance period.

Corporate Transactions

Our 2014 Plan provides that in the event of a specified corporate transaction, including a consolidation, merger, or similar transaction involving our company, the sale, lease or other disposition of all or substantially all of the assets of our company or the consolidated assets of our company and our subsidiaries, or a sale or disposition of at least 50% of the outstanding capital stock of our company, the administrator will determine how to treat each outstanding stock award. The administrator may:

- arrange for the assumption, continuation or substitution of an stock award by a successor corporation;
- arrange for the assignment of any reacquisition or repurchase rights held by us to a successor corporation;
- accelerate the vesting of the stock award and provide for its termination prior to the effective time of the corporate transaction;
- arrange for the lapse, in whole or in part, of any reacquisition or repurchase right held by us; or
- cancel the stock award prior to the transaction in exchange for a cash payment, which may be reduced by the exercise price payable in connection with the stock award.

The administrator is not obligated to treat all stock awards or portions of stock awards, even those that are of the same type, in the same manner. The administrator may take different actions with respect to the vested and unvested portions of a stock award.

Change in Control

The administrator may provide, in an individual award agreement or in any other written agreement between us and the participant, that the stock award will be subject to additional acceleration of vesting and exercisability in the event of a change in control. In the absence of such a provision, no such acceleration of the stock award will occur.

Plan Amendment or Termination

Our board has the authority to amend, suspend, or terminate our 2014 Plan, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. No incentive stock options may be granted after the tenth anniversary of the date our board of directors adopts our 2014 Plan.

2007 Plan

Our 2007 Plan was adopted by our board of directors and approved by our stockholders in June 2007. Awards outstanding under our 2007 Plan following this offering will continue to be governed by their existing terms. Our board of directors has determined that no further grants will be made under the 2007 Plan following this offering.

Share Reserve

We have reserved 6,000,000 shares of our common stock under the 2007 Plan. As of September 30, 2014, options to purchase 2,964,000 shares of our common stock were outstanding under the 2007 Plan and 2,742,667 shares were available for future grant.

Administration

Our board of directors or the compensation committee of our board of directors act as the administrator of the 2007 Plan. The administrator has the complete discretion to make all decisions relating to the plan and outstanding awards.

Eligibility

Employees, non-employee directors and consultants are eligible to participate in our 2007 Plan however only employees are eligible for the grant of incentive stock options.

Types of Awards

Our 2007 Plan provides for the award of incentive and nonstatutory stock options and the award of incentive stock (including phantom stock credits to acquire incentive stock).

The administrator may (a) grant awards under the 2007 Plan conditional upon an election by a participant to defer payment of a portion of his or her salary, (b) give a participant a choice between two types of awards or combinations of awards, (c) grant awards in the alternative so that acceptance of or exercise of one award cancels the right of a participant to another and (d) grant awards in any combination or combinations and subject to any condition or condition consistent with the terms of the 2007 Plan that the administrator in its sole discretion may determine

Terms of Awards

Subject to the terms of the 2007 Plan, the administrator determines the terms of all awards. The exercise price for stock options granted under the 2007 Plan may not be less than 100% of the fair market value of our common stock on the grant date; however, the exercise price for an incentive stock option granted to a holder of more than 10% of our stock may not be less than 110% of such fair market value on the grant date. Options are generally transferable only by will or the laws of descent and distribution, and may be exercised during the holder's lifetime only by the holder or, in the case of a nonstatutory stock option, by the holder's guardian or legal representative.

The term of options granted under the 2007 Plan may not exceed ten years and will generally expire sooner if the optionee's service terminates. Options vest at the times determined by the administrator.

Shares may be awarded under the 2007 Plan in consideration for services rendered to us or sold under the 2007 Plan. Shares awarded or sold under the 2007 Plan may be fully vested at grant or subject to special forfeiture conditions or rights of repurchase as determined by the administrator.

Change in Control

Our form of incentive stock option agreement provides for acceleration of vesting upon a change of control for incentive stock option awards issued under our 2007 Plan. All unvested shares subject to such an incentive stock option award will vest in full and become immediately exercisable immediately prior to the effective date of a change of control transaction.

Our form of non-qualified stock option agreement provides for similar acceleration of vesting upon a change of control for non-qualified stock option awards issued under our 2007 Plan. All unvested shares subject to a non-qualified stock option award will vest in full and become immediately exercisable if the holder is terminated without cause within 24 months after the consummation of a change of control transaction.

Changes in Capitalization

If any change is made in the shares of the common stock by reason of any merger, consolidation, reorganization, recapitalization, stock dividend, split up, combination of shares, exchange of shares, change in corporate structure, or otherwise, appropriate adjustments will be made by the administrator to the kind and maximum number of shares subject to the 2007 Plan and the kind and number of shares and price per share of stock subject to each outstanding award. Any increase in the shares, or the right to acquire shares, as the result of such an adjustment will be subject to the same terms and conditions that apply to the award for which such increase was received. No fractional shares of common stock will be issued under the 2007 Plan on account of any such adjustment, and rights to shares always will be limited after such an adjustment to the lower full share.

Amendment and Termination

Our board of directors may at any time amend the 2007 Plan. However, our board of directors must obtain approval of our stockholders or any amendment requiring such approval under federal tax or federal securities laws, including an increase to the maximum number of shares of our common stock that may be issued under the 2007 Plan. In addition, our board of directors may not alter or impair any award previously granted under the 2007 Plan without the consent of the holder of such award. The 2007 Plan will terminate ten years after the earliest of the date the 2007 Plan was adopted by our board of directors, the date our stockholder approved the 2007 Plan or a date determined by our board of directors.

401(k) Plan

We maintain a tax-qualified retirement plan that provides eligible U.S. employees with an opportunity to save for retirement on a tax advantaged basis. Eligible employees are able to defer eligible compensation subject to applicable annual Code limits. Currently, we match 100% of each eligible employee's contributions up to 4% of total eligible compensation. Employees' pre-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. Employees are immediately and fully vested in their contributions, and our matching contribution is also immediately and fully vested when made. The 401(k) plan is intended to be qualified under Section 401(a) of the Code with the 401(k) plan's related trust intended to be tax exempt under Section 501(a) of the Code. As a tax-qualified retirement plan, contributions to the 401(k) plan and earnings on those contributions are not taxable to the employees until distributed from the 401(k) plan.

Limitations on Liability and Indemnification Matters

Upon completion of this offering, our amended and restated certificate of incorporation will contain provisions that limit the liability of our current and former directors for monetary damages to the fullest extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to the corporation or its stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- any transaction from which the director derived an improper personal benefit.

This limitation of liability does not apply to liabilities arising under federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

Our amended and restated certificate of incorporation and our amended and restated bylaws will provide that we are required to indemnify our directors to the fullest extent permitted by Delaware law. Our amended and restated bylaws will also provide that, upon satisfaction of certain conditions, we are required to advance expenses incurred by a director in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under the provisions of Delaware law. Our amended and restated bylaws will also provide our board of directors with discretion to indemnify our officers and employees when determined appropriate by the board. We have entered into and expect to continue to enter into agreements to indemnify some of our directors and executive officers. With certain exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors. We also maintain customary directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions. At present, there is no pending litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought and we are not aware of any threatened litigation that may result in claims for indemnification.

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from them. The director or officer may amend a Rule 10b5-1 plan in some circumstances and may terminate a plan at any time. Our directors and executive officers also may buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material nonpublic information subject to compliance with the terms of our insider trading policy. Prior to 180 days after the date of this offering, subject to early termination, the sale of any shares under such plan would be prohibited by the lock-up agreement that the director or officer has entered into with the underwriters.

RELATED PARTY TRANSACTIONS

The following is a description of transactions since January 1, 2011 to which we have been a participant in which the amount involved exceeded or will exceed $120,000, and in which any of our directors, executive officers or holders of more than 5% of our capital stock, or any members of their immediate family, had or will have a direct or indirect material interest, other than compensation arrangements which are described under “Management—Executive Compensation.”

Sales of Series C Redeemable Convertible Preferred Stock

Between September 7, 2010 and March 5, 2012, we issued an aggregate of 18,557,408 shares of our Series C redeemable convertible preferred stock at a purchase price of $0.78 per share in a private placement for aggregate consideration of $14.5 million. Participants in this private placement included some of our officers, directors and holders of more than 5% of our capital stock or entities affiliated with them. The following table presents the aggregate number of shares issued to these related parties in this preferred stock financing:

	Shares of Series C Redeemable Convertible Preferred Stock Purchased	Aggregate Purchase Price
Travis C. Mickle, Ph.D. and Christal M.M. Mickle(1)	51,332	$ 40,039
Sven Guenther, Ph.D.	136,410	106,400
Joseph B. Saluri	18,044	14,074
Danny L. Thompson(2)	12,820	10,000
Matthew R. Plooster(3)	34,023	26,538

(1) Shares beneficially owned by Travis C. Mickle, Ph.D. and Christal M.M. Mickle as joint tenants with right of survivorship.
(2) Shares beneficially owned by Danny L. Thompson and Robyn A. Thompson as joint tenants with right of survivorship.
(3) Includes 8,381 shares owned by TD Ameritrade Clearing Inc. Custodian FBO Matthew Ryan Plooster Roth IRA.

2013 Transfers of Series C Redeemable Convertible Preferred Stock and Common Stock

On January 14, 2013, we and some of the holders of our capital stock entered into a stock purchase agreement pursuant to which (a) we redeemed 83,333 shares of our Series C redeemable convertible preferred stock at a purchase price of $0.78 per share from the sellers for an aggregate consideration of $65,000, (b) the sellers sold to other holders of our capital stock an aggregate of 44,873 shares of our Series C redeemable convertible preferred stock at a purchase price of $0.78 per share for an aggregate consideration of $35,000 and (c) the sellers sold to other holders of our capital stock an aggregate of 33,333 shares of our common stock at a price of $0.62 per share for an aggregate consideration of $20,667. Participants in this stock purchase included Christal M.M. Mickle, a holder more than 5% of our capital stock and one of our officers and directors. The following table presents the aggregate number of shares purchased by Christal M.M. Mickle in this stock purchase:

	Shares of Common Stock Purchased	Shares of Series C Redeemable Convertible Preferred Stock Purchased	Aggregate Purchase Price
Christal M.M. Mickle	33,333	44,873	$55,667

2013 Bridge Financing

Between June 5, 2013 and October 18, 2013, we issued an aggregate of $3.8 million in unsecured convertible promissory notes, or the 2013 notes, in a private placement. In connection with the issuance of the 2013 notes, we issued warrants to purchase an aggregate of 1,079,453 shares of our Series D redeemable convertible preferred stock at an exercise price of $0.78 per share at the time we completed our Series D financing described below. For more information regarding these warrants, please refer to the section titled "Description of Capital Stock—Warrants." Participants in this private placement of the 2013 notes included some of our officers, directors and holders of more than 5% of our capital stock or entities affiliated with them. The following table presents the aggregate principal amount of the 2013 notes and number of warrants to purchase Series D redeemable convertible preferred stock issued to these related parties in this bridge financing:

Name of Affiliate	Principal Amount of Unsecured Convertible Promissory Notes	Warrants to Purchase Series D Redeemable Convertible Preferred Stock Issued
Travis C. Mickle, Ph.D. and Christal M.M. Mickle(1)	$ 101,000	32,371
Matthew R. Plooster	6,000	384

(1) Beneficially owned by Travis C. Mickle, Ph.D. and Christal M.M. Mickle as joint tenants with right of survivorship.

All principal and interest under the 2013 notes was converted into 5,332,348 shares of our Series D redeemable convertible preferred stock in connection with our June 2014 financing described below.

Issuance of Series D Redeemable Convertible Preferred Stock and Senior Secured Convertible Promissory Notes

In June 2014, we issued an aggregate of 5,332,348 shares of our Series D redeemable convertible preferred stock pursuant to the conversion of the 2013 notes in the aggregate principal amount of $3.8 million. The purchase price for these shares took the form of conversion of principal and interest under the outstanding 2013 notes held by the respective investors at a conversion price of $0.78 per share. Participants in this financing included some of our officers, directors and holders of more than 5% of our capital stock or entities affiliated with them. The following table presents the aggregate number of our Series D redeemable convertible preferred stock issued to these related parties in this financing:

Name of Affiliate	Shares of Series D Redeemable Convertible Preferred Stock Issued	Aggregate Purchase Price (Note Conversion)
Travis C. Mickle, Ph.D. and Christal M.M. Mickle(1)	137,541	$ 107,282
Matthew R. Plooster	8,456	6,596

(1) Shares beneficially owned by Travis C. Mickle, Ph.D. and Christal M.M. Mickle as joint tenants with right of survivorship.

In addition, in connection with the Series D redeemable convertible preferred stock financing, we issued to Deerfield 1,923,077 shares of our Series D redeemable convertible preferred stock as consideration for a series of loans issued to us by Deerfield under the Deerfield facility. We also issued to Deerfield a warrant to purchase 14,423,076 shares of our Series D redeemable convertible preferred stock at an initial exercise price of $0.78 per share, or the initial Deerfield warrant, and a senior secured promissory note in the principal amount of $10.0 million, or the Deerfield Note.

Upon the closing of this offering, each share of Series D redeemable convertible preferred stock will be automatically converted into one share of common stock and the initial Deerfield warrant will become a warrant to purchase common stock and the number of shares and purchase price per share will be appropriately adjusted.

Deerfield Facility

Pursuant to the Deerfield facility, we issued to Deerfield 1,923,077 shares of our Series D redeemable convertible preferred stock as consideration for the loans provided to us thereunder, including a term loan of $15.0 million and a senior secured loan of $10.0 million. Under the terms of the Deerfield facility, Deerfield is obligated to provide three additional tranches in the principal amounts of $10.0 million, $12.5 million and $12.5 million, respectively, upon our request and after the satisfaction of specified conditions, including the FDA's acceptance of an NDA for KP201/APAP and, for the final two tranches, the subsequent approval for the commercial sale thereof. Deerfield's obligation to provide such disbursements terminates on June 30, 2016. All loans issued under the Deerfield facility bear interest at 9.75% per annum. Interest accrued on outstanding debt under the Deerfield facility is due quarterly in arrears. Upon notice to Deerfield, we may choose to have one or more of the first eight of such scheduled interest payments added to the outstanding principal amount of the debt issued under the Deerfield facility, provided that all such interest will be due on July 1, 2016. We must repay one-third of the outstanding principal amount of all debt issued under the Deerfield facility on the fourth and fifth anniversaries of the Deerfield facility. We are then obligated to repay the balance of the outstanding principal amount on February 14, 2020. If we enter into any major transaction without the prior approval of Deerfield, including a debt financing in the aggregate value of $750,000 or more, merger, asset sale, change of control transaction, liquidation event or the delisting of our securities on a publicly traded market, Deerfield has the option to demand repayment of all outstanding principal, and any unpaid interest accrued thereon, of all notes previously issued under the Deerfield facility immediately prior to consummation of such event.

The Deerfield facility also includes high yield discount obligation protections which go into effect in June 2019. After this time, if at any interest payment date our outstanding indebtedness under the Deerfield facility would qualify as an "applicable high yield discount obligation" under the Code, then we are obligated to prepay in cash on each such date the amount necessary to avoid such classification.

The Deerfield facility also limits our ability to enter into specified business transactions without the prior approval of Deerfield, including a debt financing in the aggregate value of $500,000 or more, a merger, a change of control, an asset sale or an underwritten public offering of our common stock. The Deerfield facility also provides Deerfield with the right to demand that we redeem in cash all outstanding principal, and any accrued interest thereon, of any note issued under the Deerfield facility upon the occurrence of specified events, including a merger, asset sale or other change of control transaction.

Deerfield Warrants

Each time we borrow a tranche under the Deerfield facility, we will simultaneously issue to Deerfield a warrant exercisable for a specified number of shares of our common stock, or the Deerfield warrants. When we borrowed the first tranche, we issued to Deerfield the initial Deerfield warrant. According to the terms of the initial Deerfield warrant, in no event may Deerfield exercise the initial Deerfield warrant if such exercise would result in Deerfield beneficially owning more than 9.985% of the then issued and outstanding shares of our common stock. This exercise limitation may not be waived and any purported exercise that is inconsistent with this exercise limitation is null and void. This exercise limitation will not apply to any exercise made immediately prior to a change of control transaction. If Deerfield is only able to exercise the initial Deerfield warrant for a limited number of shares due to this exercise limitation, the initial Deerfield warrant could subsequently become exercisable to purchase the remainder of the shares as a result of a variety of events. This could occur,

for example, if we issue more shares or Deerfield sells some of its existing shares. Without regard to this exercise limitation, the initial Deerfield warrant is exercisable for 14,423,076 shares of our Series D redeemable convertible preferred stock. The initial Deerfield warrant includes a net exercise provision and contains provisions for the adjustment of the exercise price and the number of shares issuable upon the exercise of the warrant in the event of certain stock dividends, stock splits, recapitalizations, reclassifications and consolidations. Under the initial Deerfield warrant, Deerfield also has the right to demand upon the occurrence of specified events, including a merger, asset sale or other change of control transaction, that we redeem the initial Deerfield warrant for a cash amount equal to the Black-Scholes value of the portion of the initial Deerfield warrant to be redeemed. If Deerfield chooses not to redeem the initial Deerfield warrant upon the occurrence of such an event, we may not enter into any such transaction unless our successor entity assumes in writing all our obligations under both the initial Deerfield warrant and the Deerfield facility and provides Deerfield with registration rights.

Following completion of this offering, exercise price protection provisions in the initial Deerfield warrant will go into effect, pursuant to which the exercise price of the initial Deerfield warrant will be adjusted downward on a broad-based weighted-average basis if we issue or sell any shares of common stock, convertible securities, warrants or options at a sale or exercise price per share less than the greater of the initial Deerfield warrant's exercise price or the closing sale price of our common stock on The NASDAQ Global Market on the last trading date immediately prior to such issuance. Without regard to the exercise limitation, upon completion of this offering, the initial Deerfield warrant will become exercisable for 14,423,076 shares of our common stock at an exercise price of $0.78 per share and is exercisable until its expiration on June 2, 2024.

If we exercise our option to borrow the second tranche, then we will issue to Deerfield a warrant to purchase 9,615,385 shares of our common stock at an initial exercise price of $0.78 per share. Similarly, if we borrow the third and fourth tranches, in each instance, we will issue to Deerfield a warrant exercisable for the number of shares equal to 60% of the principal amount of such disbursement divided by the volume weighted average sales price of our common stock for the 20 consecutive trading days immediately prior to the date of such disbursement with an exercise price per share equal to such weighted average sales price. For more information regarding the Deerfield warrants, please refer to the section titled "Description of Capital Stock — Warrants."

Deerfield Senior Secured Convertible Promissory Note

Pursuant to the Deerfield facility, we issued the Deerfield Note in the principal amount of $10.0 million. The Deerfield Note bears interest at 9.75% per annum. Deerfield may convert all or any portion of the outstanding principal and any accrued but unpaid interest of the Deerfield Note into shares of our Series D redeemable convertible preferred stock at a conversion price of $0.78 per share. According to the terms of the Deerfield Note, in no event may Deerfield convert the Deerfield Note to the extent such conversion would result in Deerfield beneficially owning more than 9.985% of the then issued and outstanding shares of our common stock. This conversion limitation may not be waived and any purported conversion that is inconsistent with this conversion limitation will be null and void. This conversion limitation will not apply to any conversion made immediately prior to a change of control transaction. If Deerfield is only able to convert the Deerfield Note into a limited number of shares due to this conversion limitation, the Deerfield Note could subsequently become convertible into the remainder of the shares as a result of a variety of events. This could occur, for example, if we issue more shares or Deerfield sells some of its existing shares. Without regard to this conversion limitation, upon the consummation of this offering, the Deerfield Note will become convertible into 13,445,906 shares of our common stock, assuming a conversion date of November 29, 2014. At our option, the Deerfield Note will convert into shares of our common stock upon the occurrence prior to June 30, 2016 of either (a) the FDA's approval of an NDA for KP201 for the treatment of acute pain without requiring the performance of an efficacy study or (b) the FDA's acceptance of an NDA for KP201 for review and our consummation of an initial public offering of our common stock at price of at least $1.25 per share

with at least $25.0 million in gross proceeds to us. Following completion of this offering, the conversion price of the Deerfield Note will be adjusted downward if we issue or sell any shares of common stock, convertible securities, warrants or options at a sale or exercise price per share less than the greater of the Deerfield Note's conversion price or the closing sale price of our common stock on The NASDAQ Global Market on the last trading date immediately prior to such issuance.

The Deerfield Note provides Deerfield with the right to demand that we redeem in cash all outstanding principal, and any accrued interest thereon, of the Deerfield Note upon the occurrence of specified events, including a merger, asset sale or other change of control transaction. If Deerfield chooses not to exercise this redemption right, then we may not enter into any such transaction unless the successor entity to us assumes in writing all our obligations under the Deerfield Note and provides Deerfield with registration rights.

Investors' Rights Agreement

We have entered into an investors' rights agreement with some of our stockholders, including Deerfield. The investors' rights agreement, among other things:

- grants these stockholders specified registration rights with respect to shares of our common stock, including shares of common stock issued or issuable upon conversion or reclassification of the shares of our redeemable convertible preferred stock, convertible notes and warrants held by them;
- obligates us to deliver periodic financial statements and provide certain inspection rights to Deerfield;
- grants a right of first refusal with respect to sales of our shares by us, subject to specified exclusions, which exclusions include the sale of the shares pursuant to this prospectus, to the stockholders who are parties to the investors' rights agreement and who hold a specified number of shares of registrable securities; and
- provides Deerfield with certain approval rights such that we may not enter into certain transactions, including the sale of some of our assets, without Deerfield's prior written consent.

For more information regarding the registration rights provided in this agreement, please refer to the section titled ''Description of Capital Stock—Registration Rights.'' The provisions of this agreement other than those relating to registration rights will terminate upon completion of this offering.

Voting Agreement

We have entered into a voting agreement with some of our stockholders, including Deerfield. The voting agreement provides for, among other things, the voting of shares with respect to the constituency of our board of directors and the voting of shares in favor of specified transactions approved by our board of directors, Deerfield and the requisite majority of holders of our outstanding Series D redeemable convertible preferred stock. The voting agreement will terminate upon the completion of this offering.

Right of First Refusal and Co-Sale Agreement

We have entered into a right of first refusal and co-sale agreement with some of our stockholders, including Deerfield. The right of first refusal and co-sale agreement, among other things, grants our investors rights of first refusal and co-sale with respect to proposed transfers of our securities by specified stockholders and grants us rights of first refusal with respect to proposed transfers of our securities by specified stockholders. The right of first refusal and co-sale agreement will terminate upon the completion of this offering.

Indemnification Agreements

Our amended and restated certificate of incorporation will contain provisions limiting the liability of directors, and our amended and restated bylaws will provide that we will indemnify each of our directors to the fullest extent permitted under Delaware law. Our amended and restated certificate of incorporation and amended and restated bylaws will also provide our board of directors with discretion to indemnify our officers and employees when determined appropriate by the board.

In addition, we have entered into indemnification agreements with each of our directors and executive officers in connection with this offering. For more information regarding these agreements, see “Executive Compensation—Limitations on Liability and Indemnification Matters.”

Related Person Transaction Policy

Prior to this offering, we have not had a formal policy regarding approval of transactions with related parties. We have adopted a related person transaction policy that sets forth our procedures for the identification, review, consideration and approval or ratification of related person transactions that will become effective immediately upon the execution of the underwriting agreement for this offering. For purposes of our policy only, a related person transaction is a transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we and any related person are, were or will be participants in which the amount involved exceeds $120,000. Transactions involving compensation for services provided to us as an employee or director are not covered by this policy. A related person is any executive officer, director or beneficial owner of more than 5% of any class of our voting securities, including any of their immediate family members and any entity owned or controlled by such persons.

Under the policy, if a transaction has been identified as a related person transaction, including any transaction that was not a related person transaction when originally consummated or any transaction that was not initially identified as a related person transaction prior to consummation, our management must present information regarding the related person transaction to our audit committee, or, if audit committee approval would be inappropriate, to another independent body of our board of directors, for review, consideration and approval or ratification. The presentation must include a description of, among other things, the material facts, the interests, direct and indirect, of the related persons, the benefits to us of the transaction and whether the transaction is on terms that are comparable to the terms available to or from, as the case may be, an unrelated third party or to or from employees generally. Under the policy, we will collect information that we deem reasonably necessary from each director, executive officer and, to the extent feasible, significant stockholder to enable us to identify any existing or potential related-person transactions and to effectuate the terms of the policy. In addition, under our Code of Business Conduct and Ethics that we expect to adopt prior to the completion of this offering, our employees and directors will have an affirmative responsibility to disclose any transaction or relationship that reasonably could be expected to give rise to a conflict of interest. In considering related person transactions, our audit committee, or other independent body of our board of directors, will take into account the relevant available facts and circumstances including, but not limited to:

- the risks, costs and benefits to us;
- the impact on a director’s independence in the event that the related person is a director, immediate family member of a director or an entity with which a director is affiliated;
- the availability of other sources for comparable services or products; and
- the terms available to or from, as the case may be, unrelated third parties or to or from employees generally.

The policy requires that, in determining whether to approve, ratify or reject a related person transaction, our audit committee, or other independent body of our board of directors, must consider, in light of known circumstances, whether the transaction is in, or is not inconsistent with, our best interests and those of our stockholders, as our audit committee, or other independent body of our board of directors, determines in the good faith exercise of its discretion.

PRINCIPAL STOCKHOLDERS

The following table sets forth the beneficial ownership of our common stock as of September 30, 2014 for:

- each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our common stock;
- each of our executive officers;
- each of our directors; and
- all of our current executive officers and directors as a group.

The percentage ownership information shown in the table is based upon 59,594,897 shares of common stock outstanding as of September 30, 2014, after giving effect to the conversion or reclassification of all of our redeemable convertible preferred stock into 41,737,048 shares of common stock, which will occur automatically upon the closing of this offering.

We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include shares of common stock issuable pursuant to the exercise of stock options or warrants that are either immediately exercisable or exercisable on or before November 29, 2014, which is 60 days after September 30, 2014. These shares are deemed to be outstanding and beneficially owned by the person holding those options or warrants for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws.

Except as otherwise noted below, the address for persons listed in the table is c/o KemPharm, Inc., 2656 Crosspark Road, Suite 100, Coralville, Iowa 52241.

Name of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned	
		Before Offering	After Offering
Principal Stockholders:			
Deerfield Private Design Fund III, L.P.(1)	5,950,550	9.9%	
Bridgepoint Investment Partners I, LLLP(2)	3,212,290	5.4	
Executive Officers and Directors:			
Travis C. Mickle, Ph.D.(3)	17,832,746	29.9	
Gordon K. Johnson(4)	400,000	*	
Sven Guenther, Ph.D.(5)	478,894	*	
Christal M.M. Mickle(3)	17,832,746	29.9	
Danny L. Thompson(6)	917,963	1.5	
Matthew R. Plooster(7)	3,255,153	5.5	
Richard W. Pascoe(8)	5,000	*	
Joseph B. Saluri(9)	39,174	*	
Jonathan S. Leff	–	–	
All current directors and executive officers as a group (9 persons)(10)	22,928,930	38.0	

* Represents beneficial ownership of less than 1%.

(1) Consists of 1,923,077 shares of common stock issuable upon conversion or reclassification of shares of preferred stock held by Deerfield Private Design Fund III, L.P., or Deerfield, and additional shares of common stock issuable upon the conversion of a convertible promissory note and the exercise of a warrant held by Deerfield. In accordance with the terms of the note and warrant, Deerfield may not convert or exercise this note or warrant if such conversion or exercise would result in Deerfield beneficially owning more than 9.985% of the then issued and outstanding shares of our common stock. This conversion limitation may not be waived and any purported conversion that is inconsistent with this conversion limitation is null and void. But for this conversion limitation, Deerfield would also have the right to acquire 13,445,906 shares of common stock issuable upon the conversion of the note and 14,423,076 shares of common stock issuable upon exercise of the warrant within 60 days of September 30, 2014, and Deerfield would beneficially own 29,476,990 shares of common stock, or 33.8% of our shares. The shares directly held by Deerfield are indirectly held by Deerfield Mgmt III, L.P., its general partner, and Deerfield Management Company, L.P., its investment manager. Mr. James E. Flynn is the sole member of Deerfield Mgmt III, L.P. and Deerfield Management Company, L.P. Each of Deerfield Mgmt III, L.P., Deerfield Management Company, L.P. and Mr. Flynn may be deemed to have shared voting and dispositive power over, and be deemed to be indirect beneficial owners of, the shares directly held by Deerfield. The principal business address of Deerfield is 780 Third Avenue, 37th Floor, New York, NY 10017.

(2) Consists of 3,212,290 shares of common stock issuable upon conversion of shares of preferred stock held by Bridgepoint Investment Partners I, LLLP, or Bridgepoint. The shares directly held by Bridgepoint are indirectly held by its general partner, Bridgepoint Capital Partners, LLP, or BPCP. The individual managers of BPCP are Matthew R. Plooster, one of our directors, and Adam S. Claypool. Matthew R. Plooster and Adam S. Claypool share voting and dispositive power with regard to the shares directly held by Bridgepoint. The principal business address of Bridgepoint is 601 E Locust Street, Suite 104, Des Moines, Iowa 50309.

(3) Consists of (a) 11,488,360 shares of common stock held directly by Dr. Mickle, (b) 2,033,333 shares of common stock held directly by Ms. Mickle, who is the spouse of Dr. Mickle, (c) 3,511,640 shares of common stock held by the TCM Family Trust u/d/p April 30, 2009, for which Dr. Mickle and Ms. Mickle serve as co-trustees, (d) 44,873 shares of common stock issuable upon conversion of shares of preferred stock held directly by Ms. Mickle, (e) 722,169 shares of common stock issuable upon conversion or reclassification of shares of preferred stock held jointly by Dr. Mickle and Ms. Mickle and (f) 32,371 shares issuable upon exercise of an immediately exercisable warrant held jointly by Dr. Mickle and Ms. Mickle.

(4) Consists of 400,000 shares of common stock underlying options that are exercisable within 60 days of September 30, 2014.

(5) Consists of 150,000 shares of common stock, 178,894 shares of common stock issuable upon conversion of shares of preferred stock and 150,000 shares of common stock underlying options that are exercisable within 60 days of September 30, 2014.

(6) Consists of (a) 55,304 shares of common stock issuable upon conversion of shares of preferred stock held jointly by Mr. Thompson and his spouse, Robyn A. Thompson, (b) 175,000 shares of common stock underlying options that are exercisable within 60 days of September 30, 2014 held directly by Mr. Thompson, and (c) 687,659 shares of common stock issuable upon conversion of shares of preferred stock held by Garrett Bancshares, LTD. Mr. Thompson is the Vice-President of Garrett Bancshares, LTD and may be deemed to have shared voting and dispositive power over, and be deemed to be indirect beneficial owner of, the shares directly held by Garrett Bancshares, LTD. The address for Garrett Bancshares, LTD is 109 N. Madison Street, Bloomfield, IA 52537.

(7) Consists of (a) 34,098 shares of common stock issuable upon conversion or reclassification of shares of preferred stock held directly by Mr. Plooster, (b) 8,381 shares of common stock issuable upon conversion of shares of preferred stock held by TD Ameritrade Clearing Inc. Custodian FBO Matthew Ryan Plooster Roth IRA, for which Mr. Plooster serves as trustee, (c) 384 shares of

common stock issuable upon exercise of an immediately exercisable warrant and (d) the shares identified in footnote 2 above.

(8) Consists of 5,000 shares of common stock underlying options that are exercisable within 60 days of September 30, 2014.

(9) Consists of 34,174 shares of common stock issuable upon conversion of shares of preferred stock and 5,000 shares of common stock underlying options that are exercisable within 60 days of September 30, 2014.

(10) Consists of (a) 17,183,333 shares of common stock, (b) 4,977,842 shares of common stock issuable upon conversion or reclassification of shares of preferred stock, (c) 735,000 shares of common stock underlying options that are exercisable within 60 days of September 30, 2014 and (d) 32,755 shares of common stock issuable upon exercise of immediately exercisable warrants.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and provisions of our amended and restated certificate of incorporation and amended and restated bylaws are summaries. You should also refer to the amended and restated certificate of incorporation and the amended and restated bylaws, which are filed as exhibits to the registration statement of which this prospectus is part.

General

Upon the completion of this offering, our amended and restated certificate of incorporation will authorize us to issue up to 250,000,000 shares of common stock, $0.0001 par value per share, and 10,000,000 shares of preferred stock, $0.0001 par value per share, all of which shares of preferred stock will be undesignated. Our board of directors may establish the rights and preferences of the preferred stock from time to time. As of September 30, 2014, we had outstanding 17,857,849 shares of common stock, held by six stockholders of record. As of September 30, 2014, after giving effect to the conversion or reclassification of all outstanding preferred stock into 41,737,048 shares of common stock, there would have been 59,594,897 shares of common stock issued and outstanding, held of record by 671 stockholders.

Common Stock

Voting Rights

Each holder of our common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Under our amended and restated certificate of incorporation and amended and restated bylaws, our stockholders will not have cumulative voting rights. Because of this, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose.

Dividends

Subject to preferences that may be applicable to any then-outstanding preferred stock, holders of common stock are entitled to receive ratably those dividends, if any, as may be declared from time to time by the board of directors out of legally available funds.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then-outstanding shares of preferred stock.

Rights and Preferences

Holders of common stock have no preemptive, conversion or subscription rights and there are no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.

Preferred Stock

As of September 30, 2014, there were outstanding 41,737,048 shares of redeemable convertible preferred stock, of which 9,704,215 shares of Series A redeemable convertible preferred stock were outstanding, 6,220,000 shares of Series B redeemable convertible preferred stock were outstanding, 18,557,408 shares of Series C redeemable convertible preferred stock were outstanding and

7,255,425 shares of Series D redeemable convertible preferred stock were outstanding. All currently outstanding shares of redeemable convertible preferred stock will be converted into an aggregate of 41,737,048 shares of common stock immediately prior to the completion of this offering.

Following the completion of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of us and may adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock on the rights of holders of common stock until the board of directors determines the specific rights attached to that preferred stock.

We have no present plans to issue any shares of preferred stock following completion of this offering.

Options

As of September 30, 2014, under our 2007 Plan, options to purchase an aggregate of 2,964,000 shares of common stock were outstanding. For additional information regarding the terms of this plan, see “Executive Compensation—Equity Incentive Plans.”

Deerfield Note

On June 2, 2014, we issued to Deerfield the Deerfield Note in the principal amount of $10.0 million. The Deerfield Note bears interest at 9.75% per annum. Deerfield may convert all or any portion of the outstanding principal, and any accrued but unpaid interest thereon, of the Deerfield Note into shares of our Series D redeemable convertible preferred stock at a price per share of $0.78. According to the terms of the Deerfield Note, in no event may Deerfield convert this note if such conversion would result in Deerfield beneficially owning more than 9.985% of the then issued and outstanding shares of our common stock. This conversion limitation may not be waived and any purported conversion that is inconsistent with this conversion limitation is null and void. This conversion limitation will not apply to any conversion made immediately prior to a change of control transaction. If Deerfield is only able to convert the Deerfield Note into a limited number of shares due to this conversion limitation, the Deerfield Note could subsequently become convertible into the remainder of the shares as a result of a variety of events. This could occur, for example, if we issue more shares or Deerfield sells some of its existing shares. Without regard to this conversion limitation, upon the consummation of this offering, the Deerfield Note will become convertible into 13,445,906 shares of our common stock, assuming a conversion date of November 29, 2014. The conversion price, and the number of shares issued upon conversion, of the Deerfield Note is subject to adjustment in the event of certain stock dividends, stock splits, recapitalizations, reclassifications and consolidations. Following completion of this offering, the conversion price of the Deerfield Note will be adjusted downward if we issue or sell any shares of common stock, convertible securities, warrants or options at a sale or exercise price per share less than the greater of the Deerfield Note’s conversion price or the closing sale price of our common stock on The NASDAQ Global Market on the last trading date immediately prior to such issuance. For more

information regarding the Deerfield Note, please refer to the section titled “Related Party Transactions—Issuance of Series D Redeemable Convertible Preferred Stock and Senior Secured Convertible Promissory Notes.”

Warrants

As of September 30, 2014, we have outstanding immediately exercisable warrants to purchase 4,470,777 shares of our common stock at a weighted average exercise price of $0.70 per share and which expire between December 7, 2015 and the two year anniversary of the consummation of this offering. The warrants include a net exercise provision and contain provisions for the adjustment of the exercise price and the number of shares issuable upon the exercise of each warrant in the event of certain stock dividends, stock splits, reorganizations, reclassifications and consolidations. Additionally, some of these warrants include anti-dilution provisions pursuant to which the exercise price of the common stock warrants will be adjusted downward if we issue any shares of our common stock at price per share or any securities convertible into our common stock with an exercise price less than the exercise price of such warrants. Upon such an event, the exercise price of such warrants will be automatically adjusted to equal the price per share paid for, or the conversion price of or the exercise price of, such securities, as applicable, and the number of shares of common stock issuable upon exercise of each warrant will be proportionately adjusted. We have also granted piggyback registration rights to certain common stock warrant holders, as more fully described below under “Description of Capital Stock—Registration Rights.”

In June 2013, in connection with our sale of the 2013 notes, we issued warrants, or the 2013 warrants, for the purchase of a number of shares of our capital stock at a price per share to be determined upon the occurrence of specified events. Upon consummation of the Deerfield facility, the 2013 warrants became exercisable for an aggregate of 1,079,453 shares of Series D redeemable convertible preferred stock at a price per share of $0.78. The 2013 warrants include a net exercise provision and provisions for the adjustment of the exercise price and the number of shares issuable upon the exercise of the warrants on a weighted-average basis in the event of certain stock dividends, stock splits, recapitalizations, reclassifications and consolidations.

In June 2014, in connection with our entering into the Deerfield facility, we issued the initial Deerfield warrant to Deerfield. According to the terms of the initial Deerfield warrant, in no event may Deerfield exercise this warrant if such exercise would result in Deerfield beneficially owning more than 9.985% of the then issued and outstanding shares of our common stock. This exercise limitation may not be waived and any purported exercise that is inconsistent with this exercise limitation is null and void. This exercise limitation will not apply to any exercise made immediately prior to a change of control transaction. If Deerfield is only able to exercise the initial Deerfield warrant for a limited number of shares due to this exercise limitation, the initial Deerfield warrant could subsequently become exercisable to purchase the remainder of the shares as a result of a variety of events. This could occur, for example, if we issue more shares or Deerfield sells some of its existing shares. Without regard to this exercise limitation, the initial Deerfield warrant is exercisable for 14,423,076 shares of our Series D redeemable convertible preferred stock. The initial Deerfield warrant includes a net exercise provision and contains provisions for the adjustment of the exercise price and the number of shares issuable upon the exercise of the warrant in the event of certain stock dividends, stock splits, recapitalizations, reclassifications and consolidations. Under the initial Deerfield warrant, Deerfield also has the right to demand upon the occurrence of specified events, including a merger, asset sale or other change of control transaction, that we redeem the initial Deerfield warrant for cash amount equal to the Black-Scholes value of the portion of the initial Deerfield warrant to be redeemed. If Deerfield chooses not to redeem the initial Deerfield warrant upon the occurrence of such an event, we may not enter into any such transaction unless our successor entity assumes in writing all our obligations under both the initial Deerfield warrant and the Deerfield facility and provides Deerfield with certain registration rights.

Following completion of this offering, exercise price protection provisions in the initial Deerfield warrant will go into effect, pursuant to which the exercise price of the initial Deerfield warrant will be adjusted downward on a broad-based weighted-average basis if we issue or sell any shares of common stock, convertible securities, warrants or options at a sale or exercise price per share less than the greater of the initial Deerfield warrant's exercise price or the closing sale price of our common stock on The NASDAQ Global Market on the last trading date immediately prior to such issuance. Upon completion of this offering, the initial Deerfield warrant will become exercisable for 14,423,076 shares of our common stock at an exercise price of $0.78 per share and is exercisable until its expiration on June 2, 2024.

Pursuant to the Deerfield facility, we are obligated to issue to Deerfield warrants with substantially the same terms as the initial Deerfield warrant if Deerfield makes any additional disbursements under the Deerfield facility. For more information regarding the Deerfield facility, please refer to the section titled "Certain Relationships and Related Party Transactions—Issuance of Series D Redeemable Convertible Preferred Stock and Senior Secured Convertible Promissory Notes."

Registration Rights

We and the holders of our existing redeemable convertible preferred stock have entered into an investors' rights agreement. The registration rights provisions of this agreement provide (i) some of these holders with demand and Form S-3 registration rights, and (ii) all holders with piggyback registration rights with respect to the shares of our common stock currently held by them and issuable to them upon exercise of warrants and upon conversion or reclassification of our redeemable convertible preferred stock in connection with this offering.

Demand Registration Rights

At any time beginning six months following the effective date of the registration statement of which this prospectus is a part, Deerfield has the right to demand that we file a Form S-1 registration statement, as long as the anticipated aggregate offering price, net of underwriting discounts and commissions, would exceed $15.0 million. Upon receipt of this demand, the holders of shares of common stock that are issued upon conversion or reclassification of our redeemable convertible preferred stock and some holders of shares of our common stock would be entitled to participate in this registration. These registration rights are subject to specified conditions and limitations, including the right of the underwriters, if any, to limit the number of shares included in any such registration under specified circumstances. Upon such a request, we are required to effect the registration as soon as reasonably possible. An aggregate of 57,016,395 shares of common stock and 18,625,664 shares issuable upon the exercise of warrants will be entitled to these demand registration rights.

Piggyback Registration Rights

At any time after the completion of this offering, if we propose to register any of our securities under the Securities Act of 1933, as amended, or the Securities Act, either for our own account or for the account of other stockholders, the holders of shares of common stock that are issued upon conversion or reclassification of our redeemable convertible preferred stock, some holders of shares of our common stock and our currently outstanding common stock warrants will each be entitled to notice of the registration and will be entitled to include their shares of common stock in the registration statement, provided that the holders of our common stock warrants may include their shares of common stock in such registration only if the aggregate value of such shares would be equal to or greater than $5.0 million in the offering or if such shares constitute all the shares of our common stock held by such holder. These piggyback registration rights are subject to specified conditions and limitations, including the right of the underwriters to limit the number of shares included in any such registration under specified circumstances. An aggregate of 57,016,395 shares of common stock and 19,000,307 shares issuable upon the exercise of warrants will be entitled to these piggyback registration rights.

Registration on Form S-3

At any time after we become eligible to file a registration statement on Form S-3, Deerfield will be entitled, upon their written request, to have such shares registered by us on a Form S-3 registration statement at our expense, subject to other specified conditions and limitations. Upon receipt of this demand, the holders of shares of common stock that are issued upon conversion or reclassification of our redeemable convertible preferred stock and some holders of shares of our common stock would be entitled to participate in this registration. An aggregate of 57,016,395 shares of common stock and 18,625,664 shares issuable upon the exercise of warrants will be entitled to these Form S-3 registration rights.

Expenses of Registration

We will pay all expenses relating to any demand, piggyback or Form S-3 registration, other than underwriting discounts and commissions, subject to specified conditions and limitations.

Termination of Registration Rights

The registration rights granted under the investors' rights agreement will terminate upon the written consent of Deerfield and the stockholders holding a majority of the registrable securities then outstanding.

Anti-Takeover Provisions

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a "business combination" to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an "interested stockholder" as an entity or person who, together with the person's affiliates and associates, beneficially owns, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Certificate of Incorporation and Bylaws to be in Effect Upon the Completion of this Offering

Our amended and restated certificate of incorporation to be in effect upon the completion of this offering, or our restated certificate, will provide for our board of directors to be divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors. Our restated certificate and our amended and restated bylaws to be effective upon the completion of this offering, or our restated bylaws, will also provide that directors may be removed by the stockholders only for cause upon the vote of 66 2/3% or more of our outstanding common stock. Furthermore, the authorized number of directors may be changed only by resolution of the board of directors, and vacancies and newly created directorships on the board of directors may, except as otherwise required by law or determined by the board, only be filled by a majority vote of the directors then serving on the board, even though less than a quorum.

Our restated certificate and restated bylaws will also provide that all stockholder actions must be effected at a duly called meeting of stockholders and will eliminate the right of stockholders to act by written consent without a meeting. Our restated bylaws will also provide that only our chairman of the board, chief executive officer or the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors may call a special meeting of stockholders.

Our restated bylaws will also provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide timely advance notice in writing, and will specify requirements as to the form and content of a stockholder's notice.

Our restated certificate and restated bylaws will provide that the stockholders cannot amend many of the provisions described above except by a vote of 66 2/3% or more of our outstanding common stock.

The combination of these provisions will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the

effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our company, outweigh the disadvantages of discouraging takeover proposals, because negotiation of takeover proposals could result in an improvement of their terms.

Choice of Forum

Our restated certificate will provide that the Court of Chancery of the State of Delaware will be the exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of fiduciary duty;
- any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our restated certificate, or our amended and restated bylaws; or
- any action asserting a claim against us that is governed by the internal affairs doctrine.

The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that, in connection with any action, a court could find the choice of forum provisions contained in our restated certificate to be inapplicable or unenforceable in such action.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is . The transfer agent's address is .

NASDAQ Global Market Listing

We intend to apply for listing of our common stock on The NASDAQ Global Market under the trading symbol "KMPH."

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, no public market existed for our common stock. Future sales of shares of our common stock in the public market after this offering, or the perception that these sales could occur, could adversely affect prevailing market prices for our common stock and could impair our future ability to raise equity capital.

Based on the number of shares outstanding as of September 30, 2014, upon completion of this offering and assuming no exercise of the underwriters' option to purchase additional shares, shares of common stock will be outstanding, assuming no outstanding options or warrants are exercised. All of the shares of common stock sold in this offering will be freely tradable without restrictions or further registration under the Securities Act, except for any shares sold to our "affiliates," as that term is defined under Rule 144 under the Securities Act. The remaining 59,594,897 shares of common stock held by existing stockholders are "restricted securities," as that term is defined in Rule 144 under the Securities Act. Restricted securities may be sold in the public market only if registered or if their resale qualifies for exemption from registration described below under Rule 144 promulgated under the Securities Act.

As a result of contractual restrictions described below and the provisions of Rules 144 and 701, the shares sold in this offering and the restricted securities will be available for sale in the public market as follows:

- the shares sold in this offering and of the existing restricted shares will be eligible for immediate sale upon the completion of this offering;
- restricted shares will be eligible for sale in the public market 90 days after the date of this prospectus, subject to the volume, manner of sale and other limitations under Rule 144 and Rule 701; and
- restricted shares will be eligible for sale in the public market upon expiration of lock-up agreements 180 days after the date of this prospectus, subject in certain circumstances to the volume, manner of sale and other limitations under Rule 144 and Rule 701.

Rule 144

In general, persons who have beneficially owned restricted shares of our common stock for at least six months, and any of our affiliates who own either restricted or unrestricted shares of our common stock, are entitled to sell their securities without registration with the SEC under an exemption from registration provided by Rule 144 under the Securities Act.

Non-Affiliates

Any person who is not deemed to have been one of our affiliates at the time of, or at any time during the three months preceding, a sale may sell an unlimited number of restricted securities under Rule 144 if:

- the restricted securities have been held for at least six months, including the holding period of any prior owner other than one of our affiliates;
- we have been subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale; and
- we are current in our Exchange Act reporting at the time of sale.

Any person who is not deemed to have been an affiliate of ours at the time of, or at any time during the three months preceding, a sale and has held the restricted securities for at least one year, including the holding period of any prior owner other than one of our affiliates, will be entitled to sell an unlimited number of restricted securities without regard to the length of time we have been subject to Exchange Act periodic reporting or whether we are current in our Exchange Act reporting.

Affiliates

Persons seeking to sell restricted securities who are our affiliates at the time of, or any time during the three months preceding, a sale, would be subject to the restrictions described above. They are also subject to additional restrictions, by which such person would be required to comply with the manner of sale and notice provisions of Rule 144 and would be entitled to sell within any three-month period only that number of securities that does not exceed the greater of either of the following:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after the completion of this offering based on the number of shares outstanding as of September 30, 2014; or
- the average weekly trading volume of our common stock on The NASDAQ Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Additionally, persons who are our affiliates at the time of, or any time during the three months preceding, a sale may sell unrestricted securities under the requirements of Rule 144 described above, without regard to the six month holding period of Rule 144, which does not apply to sales of unrestricted securities.

Rule 701

Rule 701 under the Securities Act, as in effect on the date of this prospectus, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers or directors who purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling their shares. However, substantially all Rule 701 shares are subject to lock-up agreements as described below and in the section of this prospectus titled “Underwriting” and will become eligible for sale upon the expiration of the restrictions set forth in those agreements.

Form S-8 Registration Statements

As soon as practicable after the completion of this offering, we intend to file with the SEC one or more registration statements on Form S-8 under the Securities Act to register the shares of our common stock that are issuable pursuant to our 2007 Plan and 2014 Plan. These registration statements will become effective immediately upon filing. Shares covered by these registration statements will then be eligible for sale in the public markets, subject to vesting restrictions, any applicable lock-up agreements described below and Rule 144 limitations applicable to affiliates.

Lock-Up Agreements

We and the holders of substantially all of our common stock outstanding on the date of this prospectus, including each of our executive officers and directors, have entered into lock-up agreements with the underwriters or otherwise agreed, subject to certain exceptions, that we and they will not, directly or indirectly, offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale, or otherwise dispose of or hedge any of our shares of common stock, any options or warrants to purchase shares of our common stock, or any securities convertible into, or exchangeable for or that represent the right to receive shares of our common stock, without the prior written consent of the representatives of the underwriters for a period of 180 days from the date of this prospectus.

MATERIAL U.S. FEDERAL INCOME AND ESTATE TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following is a general discussion of the material U.S. federal income and estate tax considerations applicable to non-U.S. holders with respect to their ownership and disposition of shares of our common stock issued pursuant to this offering. All prospective non-U.S. holders of our common stock should consult their own tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock. In general, a non-U.S. holder means a beneficial owner of our common stock (other than a partnership or an entity or arrangement treated as a partnership for U.S. federal income tax purposes) that is not, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation, or an entity treated as a corporation for U.S. federal income tax purposes, created or organized in the United States or under the laws of the United States or of any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust if (1) a U.S. court can exercise primary supervision over the trust's administration and one or more U.S. persons have the authority to control all of the trust's substantial decisions or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended, which we refer to as the Code, existing U.S. Treasury Regulations promulgated thereunder, published administrative rulings and judicial decisions, all as in effect as of the date of this prospectus. These laws are subject to change and to differing interpretation, possibly with retroactive effect. Any change or differing interpretation could alter the tax consequences to non-U.S. holders described in this prospectus.

We assume in this discussion that a non-U.S. holder holds shares of our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, for investment). This discussion does not address all aspects of U.S. federal income and estate taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances, nor does it address any aspects of U.S. state, local or non-U.S. taxes. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as holders that own, or are deemed to own, more than 5% of our capital stock (except to the extent specifically set forth below), corporations that accumulate earnings to avoid U.S. federal income tax, tax-exempt organizations, banks, financial institutions, insurance companies, brokers, dealers or traders in securities, commodities or currencies, tax-qualified retirement plans, holders subject to the alternative minimum tax or the Medicare contribution tax, holders who hold or receive our common stock pursuant to the exercise of employee stock options or otherwise as compensation, holders holding our common stock as part of a hedge, straddle or other risk reduction strategy, conversion transaction or other integrated investment, holders deemed to sell our common stock under the constructive sale provisions of the Code, controlled foreign corporations, passive foreign investment companies and certain former U.S. citizens or long-term residents.

In addition, this discussion does not address the tax treatment of partnerships (or entities or arrangements that are treated as partnerships for U.S. federal income tax purposes) or persons that hold their common stock through such partnerships. If a partnership, including any entity or arrangement treated as a partnership for U.S. federal income tax purposes, holds shares of our

common stock, the U.S. federal income tax treatment of a partner in such partnership will generally depend upon the status of the partner and the activities of the partnership. Such partners and partnerships should consult their own tax advisors regarding the tax consequences of the purchase, ownership and disposition of our common stock.

There can be no assurance that the Internal Revenue Service, which we refer to as the IRS, will not challenge one or more of the tax consequences described herein, and we have not obtained, nor do we intend to obtain, a ruling with respect to the U.S. federal income or estate tax consequences to a non-U.S. holder of the purchase, ownership or disposition of our common stock.

Distributions on Our Common Stock

Distributions, if any, on our common stock generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such holder's adjusted tax basis in the common stock. Any remaining excess will be treated as capital gain from the sale or exchange of such common stock, subject to the tax treatment described below in "Gain on Sale, Exchange or Other Disposition of Our Common Stock." Any such distribution will also be subject to the discussion below under the heading "Foreign Accounts."

Dividends paid to a non-U.S. holder will generally be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements. However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same graduated U.S. federal income tax rates applicable to U.S. persons (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence.

A non-U.S. holder of our common stock who claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E (or successor form) and satisfy applicable certification and other requirements. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

Gain on Sale, Exchange or Other Disposition of Our Common Stock

Subject to the discussion below regarding backup withholding and foreign accounts, in general, a non-U.S. holder will not be subject to any U.S. federal income tax on any gain realized upon such holder's sale, exchange or other disposition of shares of our common stock unless:

- the gain is effectively connected with a U.S. trade or business of the non-U.S. holder and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a

fixed base maintained in the United States by such non-U.S. holder, in which case the non-U.S. holder generally will be taxed at the graduated U.S. federal income tax rates applicable to U.S. persons (as defined in the Code) and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above in "Distributions on Our Common Stock" also may apply;

- the non-U.S. holder is a nonresident alien individual who is present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty) on the net gain derived from the disposition, which may be offset by U.S. source capital losses of the non-U.S. holder, if any (even though the individual is not considered a resident of the United States); or
- our common stock constitutes a U.S. real property interest because we are, or have been, at any time during the five-year period preceding such disposition (or the non-U.S. holder's holding period, if shorter) a "U.S. real property holding corporation." Even if we are or become a U.S. real property holding corporation, provided that our common stock is regularly traded on an established securities market, our common stock will be treated as a U.S. real property interest only with respect to a non-U.S. holder that holds more than 5% of our outstanding common stock, directly or indirectly, actually or constructively, during the shorter of the 5-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. In such case, such non-U.S. holder generally will be taxed on its net gain derived from the disposition at the graduated U.S. federal income tax rates applicable to U.S. persons (as defined in the Code). Generally, a corporation is a U.S. real property holding corporation only if the fair market value of its U.S. real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a U.S. real property holding corporation, or that we are likely to become one in the future. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rules described above.

U.S. Federal Estate Tax

Shares of our common stock that are owned or treated as owned at the time of death by an individual who is not a citizen or resident of the United States, as specifically defined for U.S. federal estate tax purposes, are considered U.S. situs assets and will be included in the individual's gross estate for U.S. federal estate tax purposes. Such shares, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise.

Backup Withholding and Information Reporting

We must report annually to the IRS and to each non-U.S. holder the gross amount of the dividends on our common stock paid to such holder and the tax withheld, if any, with respect to such dividends. Non-U.S. holders will have to comply with specific certification procedures to establish that the holder is not a U.S. person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock. Dividends paid to non-U.S. holders subject to the U.S. withholding tax, as described above in "Distributions on Our Common Stock," generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding will generally apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with

substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder may be allowed as a credit against the non-U.S. holder's U.S. federal income tax liability, if any, and may entitle such holder to a refund, provided that the required information is timely furnished to the IRS.

Foreign Accounts

The Code generally imposes a U.S. federal withholding tax of 30% on dividends and the gross proceeds of a disposition of our common stock paid to a "foreign financial institution" (as specifically defined for this purpose), unless such institution enters into an agreement with the U.S. government to, among other things, withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners). A U.S. federal withholding tax of 30% also applies to dividends and the gross proceeds of a disposition of our common stock paid to a non-financial foreign entity, unless such entity provides the withholding agent with either a certification that it does not have any substantial direct or indirect U.S. owners or provides information regarding substantial direct and indirect U.S. owners of the entity. The withholding provisions described above currently apply to dividends paid on our common stock and will generally apply with respect to gross proceeds of a sale or other disposition of our common stock on or after January 1, 2017. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes.

UNDERWRITING

We and the underwriters for the offering named below have entered into an underwriting agreement with respect to the common stock being offered. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase from us the number of shares of our common stock set forth opposite its name below. Cowen and Company, LLC and RBC Capital Markets, LLC are the representatives of the underwriters.

Underwriter	Number of Shares
Cowen and Company, LLC	
RBC Capital Markets, LLC	
Canaccord Genuity Inc.	
Oppenheimer & Co. Inc.	
Total	

The underwriting agreement provides that the obligations of the underwriters are conditional and may be terminated at their discretion based on their assessment of the state of the financial markets. The obligations of the underwriters may also be terminated upon the occurrence of the events specified in the underwriting agreement. The underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased, other than those shares covered by the overallotment option described below. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act of 1933, and to contribute to payments the underwriters may be required to make in respect thereof. The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Underwriters' Option to Purchase Additional Shares. We have granted to the underwriters an option to purchase up to additional shares of common stock at the public offering price, less the underwriting discount. This option is exercisable for a period of 30 days. The underwriters may exercise this option solely for the purpose of covering overallotments, if any, made in connection with the sale of common stock offered hereby. To the extent that the underwriters exercise this option, the underwriters will purchase additional shares from us in approximately the same proportion as shown in the table above.

Discounts and Commissions. The following table shows the public offering price, underwriting discount and proceeds, before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares. We estimate that the total expenses of the offering, excluding underwriting discount, will be approximately $ and are payable by us.

		Total	
	Per Share	Without Over-Allotment	With Over-Allotment
Public offering price			
Underwriting discount			
Proceeds, before expenses, to us			

The underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus. The underwriters may offer the shares of common stock to securities dealers at the public offering price less a concession not in excess of $ per share. The underwriters may allow, and the dealers may reallow, a discount not in excess of $ per share to other dealers. If all of the shares are not sold at the public offering price, the underwriters may change the offering price and other selling terms.

Discretionary Accounts. The underwriters do not intend to confirm sales of the shares to any accounts over which they have discretionary authority.

Market Information. Prior to this offering, there has been no public market for shares of our common stock. The initial public offering price will be determined by negotiations between us and the representatives of the underwriters.

An active trading market for the shares may not develop. It is also possible that after the offering the shares will not trade in the public market at or above the initial public offering price.

We intend to apply for listing of our common stock on The NASDAQ Global Market under the trading symbol “KMPH.”

Stabilization. In connection with this offering, the underwriters may engage in stabilizing transactions, overallotment transactions, syndicate covering transactions, penalty bids and purchases to cover positions created by short sales.

- Stabilizing transactions permit bids to purchase shares of common stock so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the common stock while the offering is in progress.
- Overallotment transactions involve sales by the underwriters of shares of common stock in excess of the number of shares the underwriters are obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the overallotment option. In a naked short position, the number of shares involved is greater than the number of shares in the overallotment option. The underwriters may close out any short position by exercising their overallotment option and/or purchasing shares in the open market.
- Syndicate covering transactions involve purchases of common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which they may purchase shares through exercise of the overallotment option. If the underwriters sell more shares than could be covered by exercise of the overallotment option and, therefore, have a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.
- Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the common stock originally sold by that syndicate member is purchased in stabilizing or syndicate covering transactions to cover syndicate short positions. These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock in

the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on The NASDAQ Global Market, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

Lock-Up Agreements. Pursuant to certain ‘‘lock-up’’ agreements, we and our executive officers, directors and substantially all of our other stockholders, have agreed, subject to certain exceptions, not to lend, offer, sell, contract to sell, announce any intention to sell, pledge or otherwise dispose of, enter into any swap or other agreement that transfers, in whole or in part, the economic consequence of ownership of, directly or indirectly, or file with the SEC a registration statement under the Securities Act relating to, any common stock or securities convertible into or exchangeable or exercisable for any common stock without the prior written consent of Cowen and Company, LLC and RBC Capital Markets, LLC, for a period of 180 days after the date of the pricing of the offering.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for or repayable with common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition. The exceptions permit us, among other things and subject to restrictions, to: (a) issue common stock or options pursuant to employee benefit plans or (b) issue common stock upon exercise of outstanding options or warrants. The exceptions permit parties to the ‘‘lock-up” agreements, among other things and subject to restrictions, to: (a) participate in tenders involving the acquisition of a majority of our stock, (b) participate in transfers or exchanges involving common stock or securities convertible into common stock or (c) make certain gifts. In addition, the lock-up provision will not restrict broker-dealers from engaging in market making and similar activities conducted in the ordinary course of their business.

Electronic Offer, Sale and Distribution of Shares. A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representatives may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

Other Relationships. Certain of the underwriters and their affiliates have provided, and may in the future provide, various investment banking, commercial banking and other financial services for us and our affiliates for which they are received, and may in the future receive, customary fees.

Selling Restrictions

No action has been taken in any jurisdiction except the United States that would permit a public offering of our common stock, or the possession, circulation or distribution of this prospectus or any other material relating to us or our common stock in any jurisdiction where action for that purpose is required. Accordingly, the shares may not be offered or sold, directly or indirectly, and neither this prospectus nor any other offering material or advertisements in connection with the shares may be distributed or published, in or from any country or jurisdiction except in compliance with any applicable rules and regulations of any such country or jurisdiction.

United Kingdom

Each of the underwriters has, separately and not jointly, represented and agreed that:

- it has not made or will not make an offer of the securities to the public in the United Kingdom within the meaning of Section 102B of the Financial Services and Markets Act 2000 (as amended), or the FSMA, except to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities or otherwise in circumstances which do not require the publication by us of a prospectus pursuant to the Prospectus Rules of the Financial Services Authority, or FSA;
- it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of FSMA) to persons who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 or in circumstances in which Section 21 of FSMA does not apply to us; and
- it has complied with and will comply with all applicable provisions of FSMA with respect to anything done by it in relation to the securities in, from or otherwise involving the United Kingdom.

European Economic Area

In relation to each Member State of the European Economic Area (Iceland, Norway and Lichtenstein in addition to the member states of the European Union) that has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has, separately and not jointly, represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, or the Relevant Implementation Date, it has not made and will not make an offer of the securities to the public in that Relevant Member State prior to the publication of a prospectus in relation to the securities that has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of the securities to the public in that Relevant Member State at any time:

- to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts; and
- in any other circumstances which do not require the publication by the issuer of a prospectus pursuant to Article 3 of the Prospectus Directive.

Each person in a Relevant Member State who receives any communication in respect of, or who acquires any securities under, the offer contemplated in this prospectus will be deemed to have represented, warranted and agreed to and with us and the underwriters that:

- it is a qualified investor within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive; and
- in the case of any securities acquired by it as a financial intermediary, as that term is used in Article 3(2) of the Prospectus Directive, (1) the securities acquired by it in the offer have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant Member State other than qualified investors, as that term is defined in the Prospectus Directive, or in circumstances in which the prior consent of the underwriters has been given to the offer or resale; or (2) where securities have been acquired by it on

behalf of persons in any Relevant Member State other than qualified investors, the offer of those securities to it is not treated under the Prospectus Directive as having been made to such persons.

For the purposes of the provisions in the two immediately preceding paragraphs, the expression an “offer of the securities to the public” in relation to the securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State, and the expression “Prospectus Directive” means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

Israel

In the State of Israel this prospectus shall not be regarded as an offer to the public to purchase securities under the Israeli Securities Law, 5728 – 1968, which requires a prospectus to be published and authorized by the Israel Securities Authority, if it complies with certain provisions of Section 15 of the Israeli Securities Law, 5728–1968, including, inter alia, if: (i) the offer is made, distributed or directed to not more than 35 investors, subject to certain conditions (the “Addressed Investors”); or (ii) the offer is made, distributed or directed to certain qualified investors defined in the First Addendum of the Israeli Securities Law, 5728 – 1968, subject to certain conditions (the “Qualified Investors”). The Qualified Investors shall not be taken into account in the count of the Addressed Investors and may be offered to purchase securities in addition to the 35 Addressed Investors. The company has not and will not take any action that would require it to publish a prospectus in accordance with and subject to the Israeli Securities Law, 5728 – 1968. We have not and will not distribute this prospectus or make, distribute or direct an offer to subscribe for our securities to any person within the State of Israel, other than to Qualified Investors and up to 35 Addressed Investors.

Qualified Investors may have to submit written evidence that they meet the definitions set out in of the First Addendum to the Israeli Securities Law, 5728 – 1968. In particular, we may request, as a condition to be offered securities, that Qualified Investors will each represent, warrant and certify to us and/or to anyone acting on our behalf: (i) that it is an investor falling within one of the categories listed in the First Addendum to the Israeli Securities Law, 5728 – 1968; (ii) which of the categories listed in the First Addendum to the Israeli Securities Law, 5728 – 1968 regarding Qualified Investors is applicable to it; (iii) that it will abide by all provisions set forth in the Israeli Securities Law, 5728 – 1968 and the regulations promulgated thereunder in connection with the offer to be issued securities; (iv) that the securities that it will be issued are, subject to exemptions available under the Israeli Securities Law, 5728 – 1968: (a) for its own account; (b) for investment purposes only; and (c) not issued with a view to resale within the State of Israel, other than in accordance with the provisions of the Israeli Securities Law, 5728 – 1968; and (v) that it is willing to provide further evidence of its Qualified Investor status. Addressed Investors may have to submit written evidence in respect of their identity and may have to sign and submit a declaration containing, inter alia, the Addressed Investor’s name, address and passport number or Israeli identification number.

LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus will be passed upon for us by Cooley LLP, Broomfield, Colorado. A partner of Cooley LLP is our secretary. Certain legal matters related to this offering will be passed upon for the underwriters by Morgan, Lewis & Bockius LLP, New York, New York.

EXPERTS

The financial statements of KemPharm, Inc. at December 31, 2012 and 2013, and for the years then ended appearing in this prospectus and registration statement have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act, with respect to the shares of common stock being offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information in the registration statement and its exhibits. For further information with respect to our company and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You can read our SEC filings, including the registration statement, over the internet at the SEC's website at *www.sec.gov*. You may also read and copy any document we file with the SEC at its public reference room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may also obtain copies of these documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

Upon completion of this offering, we will be subject to the information reporting requirements of the Exchange Act, and we will file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for inspection and copying at the public reference room and website of the SEC referred to above. We also maintain a website at *www.kempharm.com*, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus.

INDEX TO FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of KemPharm, Inc.:

We have audited the accompanying balance sheets of KemPharm, Inc. as of December 31, 2012 and 2013, and the related statements of operations, changes in redeemable convertible preferred stock and stockholders' deficit and cash flows for each of the two years in the period ended December 31, 2013. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of KemPharm, Inc. at December 31, 2012 and 2013, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2013, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

Minneapolis, Minnesota
December 19, 2014

KEMPHARM, INC.

BALANCE SHEETS

	As of December 31, 2012	As of December 31, 2013
Assets		
Current assets:		
Cash and cash equivalents	$ 2,541,687	$ 1,968,632
Prepaid expenses and other current assets	67,074	70,970
Total current assets	2,608,761	2,039,602
Property and equipment, net	319,447	380,203
Other long-term assets	3,880	9,179
Total assets	$ 2,932,088	$ 2,428,984
Liabilities, redeemable convertible preferred stock, and stockholders' deficit		
Current liabilities:		
Accounts payable and accrued expenses	$ 1,081,989	$ 1,365,574
Current portion of capital lease obligation	47,347	31,303
Convertible notes	–	3,846,000
Total current liabilities	1,129,336	5,242,877
Line of credit	39,361	34,845
Derivative and warrant liability	2,390,608	2,813,260
Capital lease obligation, net of current portion	–	57,919
Total liabilities	3,559,305	8,148,901
Commitments and contingencies (Note 7)		
Redeemable convertible preferred stock:		
Series A redeemable convertible preferred stock, no par value; 10,000,000 shares authorized; 9,704,215 shares issued and outstanding as of December 31, 2012 and 2013	3,342,849	3,342,849
Series B redeemable convertible preferred stock, no par value; 7,000,000 shares authorized; 6,220,000 shares issued and outstanding as of December 31, 2012 and 2013	3,312,465	3,312,465
Series C redeemable convertible preferred stock, no par value; 33,000,000 shares authorized; 18,557,408 shares issued and outstanding as of December 31, 2012 and 2013	11,892,066	11,892,066
Total redeemable convertible preferred stock	18,547,380	18,547,380
Stockholders' deficit:		
Common stock, no par value; 85,000,000 shares authorized; 17,857,849 shares issued and outstanding as of December 31, 2012 and 2013	1,304,557	1,438,302
Accumulated deficit	(20,479,154)	(25,705,599)
Total stockholders' deficit	(19,174,597)	(24,267,297)
Total liabilities, redeemable convertible preferred stock, and stockholders' deficit	$ 2,932,088	$ 2,428,984

See accompanying notes to financial statements.

KEMPHARM, INC.

STATEMENTS OF OPERATIONS

	Year Ended December 31,	
	2012	2013
Revenue	$ –	$ –
Operating expenses:		
Research and development	2,994,726	3,366,932
General and administrative	2,342,343	1,350,971
Gain on sale of assets	(5,066,093)	–
Total operating expenses	270,976	4,717,903
Loss from operations	(270,976)	(4,717,903)
Other income (expense):		
Interest expense	(8,542)	(1,716,869)
Fair value adjustment	128,597	1,137,348
Interest and other income	43,277	51,435
Total other income (expense)	163,332	(528,086)
Loss before income taxes	(107,644)	(5,245,989)
Income tax benefit	37,228	19,544
Net loss	$ (70,416)	$ (5,226,445)
Net loss per share:		
Basic and diluted	$ (0.00)	$ (0.29)
Basic and diluted, pro forma (unaudited)		$ (0.10)
Weighted average common shares outstanding:		
Basic and diluted	17,843,967	17,857,849
Basic and diluted, pro forma (unaudited)		54,325,603

See accompanying notes to financial statements.

KEMPHARM, INC.

STATEMENTS OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT

	Redeemable Convertible Preferred Stock Series				Common Stock	Accumulated Deficit	Total Stockholders' Deficit
	A	B	C	Total			
Balance as of January 1, 2012	$3,342,849	$3,312,465	$11,504,279	$18,159,593	$ 836,566	$(20,408,738)	$(19,572,172)
Net loss	–	–	–	–	–	(70,416)	(70,416)
Issuance of stock, net of expenses	–	–	525,493	525,493	–	–	–
Issuance of warrants	–	–	(72,706)	(72,706)	–	–	–
Stock-based compensation expense	–	–	–	–	467,991	–	467,991
Repurchase of redeemable convertible preferred stock	–	–	(65,000)	(65,000)	–	–	–
Balance as of December 31, 2012	3,342,849	3,312,465	11,892,066	18,547,380	1,304,557	(20,479,154)	(19,174,597)
Net loss	–	–	–	–	–	(5,226,445)	(5,226,445)
Stock-based compensation expense	–	–	–	–	133,745	–	133,745
Balance as of December 31, 2013	$3,342,849	$3,312,465	$11,892,066	$18,547,380	$1,438,302	$(25,705,599)	$(24,267,297)

See accompanying notes to financial statements.

KEMPHARM, INC.

STATEMENTS OF CASH FLOWS

	Year Ended December 31, 2012	2013
Cash flows from operating activities:		
Net loss	$ (70,416)	$ (5,226,445)
Adjustments to reconcile net loss to net cash used in operating activities:		
Gain on sale of assets	(5,066,093)	–
Loss on sale or disposal of assets	–	11,876
Stock-based compensation expense	467,991	133,745
Non-cash interest expense	–	151,989
Amortization of debt issuance costs and debt discount	–	1,560,000
Depreciation and amortization expense	62,564	67,724
Fair value adjustment	(128,597)	(1,137,348)
Change in assets and liabilities:		
Prepaid expenses and other current assets	16,638	(3,898)
Accounts payable and accrued expenses	283,595	126,300
Net cash used in operating activities	(4,434,318)	(4,316,057)
Cash flows from investing activities:		
Proceeds from sale of assets	5,066,093	5,000
Purchases of property and equipment	(18,943)	(50,968)
Net cash provided by (used in) investing activities	5,047,150	(45,968)
Cash flows from financing activities:		
Proceeds from issuance of Convertible Notes	–	3,846,000
Repayment of line of credit	(5,280)	(4,516)
Repayment of obligations under capital lease	(74,079)	(52,514)
Proceeds from issuance of redeemable convertible preferred stock, net of expenses	525,493	–
Repurchase of redeemable convertible preferred stock	(65,000)	–
Net cash provided by financing activities	381,134	3,788,970
Increase (decrease) in cash and cash equivalents	993,966	(573,055)
Cash and equivalents, beginning of year	1,547,721	2,541,687
Cash and equivalents, end of year	$ 2,541,687	$ 1,968,632
Supplemental cash flow information:		
Cash paid for interest	$ 8,542	$ 4,880
Non-cash activities:		
Conversion Feature on Convertible Notes	$ –	$ 1,150,000
Issuance of warrants	$ 72,706	$ 410,000
Fixed assets financed by capital lease	$ –	$ 94,388

See accompanying notes to financial statements.

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS

1. Description of Business and Basis of Presentation

KemPharm, Inc. (the Company) is a clinical-stage specialty pharmaceutical company engaged in the discovery and development of proprietary new molecular entity (NME) prodrugs. The Company was formed on October 26, 2006 and incorporated in Iowa. Through the use of its Ligand Activated Therapy (LAT) platform technology the Company is able to initiate and pursue the development of improved versions of widely prescribed, approved drugs.

The Company has experienced recurring losses from operations and negative operating cash flows due to its ongoing research and development of its potential product candidates. Various internal and external factors will affect whether and when the candidates become approved drugs and how significant their market share will be. The length of time and cost of developing and commercializing these candidates and/or failure of them at any stage of the drug approval process will materially affect the Company's financial condition and future operations. The Company also has negative working capital and a stockholders' deficit at December 31, 2013.

The Company has financed its operations primarily through issuances of redeemable convertible preferred stock and convertible notes. With the cash received under the Deerfield Facility Agreement (Note 17), the Company believes it has adequate cash on hand to meet its obligations into 2015. If required, there can be no assurances that the Company would be successful in obtaining additional financing.

2. Summary of Significant Accounting Policies

Unaudited Pro Forma Presentation

The unaudited pro forma net loss per share for the year ended December 31, 2013 assumes (i) the conversion of the principal amount and accrued interest of convertible notes at the time of issuance or at the time the interest is accrued, and (ii) the conversion of all outstanding shares of redeemable convertible preferred stock as of January 1, 2013 or the time of issuance, if later, into an aggregate of 34,481,623 shares of common stock upon the completion of an initial public offering (IPO) (Note 15).

The Company believes that the unaudited pro forma information is material to investors because the convertible notes converted into redeemable convertible preferred stock subsequent to December 31, 2013 and the conversion of the redeemable convertible preferred stock into common stock will occur upon the closing of an IPO and, therefore, the disclosure provides a measure of net loss per share inclusive of the additional shares of common stock.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the Company to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

On an ongoing basis, the Company evaluates its estimates, including those related to the useful lives of property and equipment, the fair value of the Company's common stock and assumptions used for purposes of determining stock-based compensation, income taxes, and the fair value of the derivative and warrant liability, among others. The Company bases its estimates on historical experience and on various other assumptions that it believes to be reasonable, the results of which form the basis for making judgments about the carrying value of assets and liabilities.

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Concentration of Credit Risk

Financial instruments that potentially expose the Company to concentrations of credit risk consist principally of cash on deposit with multiple financial institutions, the balances of which frequently exceed insured limits.

Cash and Cash Equivalents

The Company considers any highly liquid investments with an original maturity of three months or less to be cash and cash equivalents.

Property and Equipment

The Company records property and equipment at cost less accumulated depreciation and amortization. Costs of renewals and improvements that extend the useful lives of the assets are capitalized. Maintenance and repairs are expensed as incurred. Depreciation is determined on a straight-line basis over the estimated useful lives of the assets, which generally range from five to fifteen years. Leasehold improvements are amortized over the shorter of the useful life of the asset or the term of the related lease. Upon retirement or disposition of assets, the costs and related accumulated depreciation and amortization are removed from the accounts with the resulting gains or losses, if any, reflected in results of operations.

Supply Arrangements

The Company enters into supply arrangements for the supply of components of its product candidates. These arrangements also may include a share of future revenue if related product candidates reach commercialization. Costs under these supply arrangements, if any, are expensed as incurred (Note 8).

Impairment of Long-Lived Assets

Long-lived assets to be held and used are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be recoverable. When such events occur, the Company compares the carrying amounts of the assets to their undiscounted expected future cash flows. If the undiscounted cash flows are insufficient to recover the carrying values, an impairment loss is recorded for the difference between the carrying values and fair values of the asset. No such impairment had occurred as of December 31, 2012 and 2013.

Fair Value of Financial Instruments

The accounting standard for fair value measurements provides a framework for measuring fair value and requires disclosures regarding fair value measurements. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, based on the Company's principal or, in absence of a principal, most advantageous market for the specific asset or liability.

The Company uses a three-tier fair value hierarchy to classify and disclose all assets and liabilities measured at fair value on a recurring basis, as well as assets and liabilities measured at fair value on a non-recurring basis, in periods subsequent to their initial measurement. The hierarchy requires the Company to use observable inputs when available, and to minimize the use of unobservable inputs, when determining fair value. The three tiers are defined as follows:

- Level 1—Observable inputs that reflect quoted market prices (unadjusted) for identical assets or liabilities in active markets;

- Level 2—Observable inputs other than quoted prices in active markets that are observable either directly or indirectly in the marketplace for identical or similar assets and liabilities; and
- Level 3—Unobservable inputs that are supported by little or no market data, which require the Company to develop its own assumptions.

Research and Development

Major components of research and development costs include cash compensation, stock-based compensation, depreciation and amortization expense on research and development property and equipment, costs of preclinical studies, clinical trials and related clinical manufacturing, costs of drug development, costs of materials and supplies, facilities cost, overhead costs, regulatory and compliance costs, and fees paid to consultants and other entities that conduct certain research and development activities on the Company's behalf. Costs incurred in research and development are expensed as incurred.

The Company records nonrefundable advance payments it makes for future research and development activities as prepaid expenses. Prepaid expenses are recognized as expense in the statements of operations as the Company receives the related goods or services.

Income Taxes

The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial reporting and tax basis of assets and liabilities, as well as for operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using the tax rates that are expected to apply to taxable income for the years in which those tax assets and liabilities are expected to be realized or settled. Valuation allowances are recorded to reduce deferred tax assets to the amount the Company believes is more likely than not to be realized.

Uncertain tax positions are recognized only when the Company believes it is more likely than not that the tax position will be upheld on examination by the taxing authorities based on the merits of the position. The Company recognizes interest and penalties, if any, related to unrecognized income tax uncertainties in income tax expense. The Company did not have any accrued interest or penalties associated with uncertain tax positions as of December 31, 2012 and 2013.

The Company files income tax returns in the United States for federal and various state jurisdictions. With few exceptions, the Company is no longer subject to U.S. federal and state and local income tax examinations for years prior to 2010, although carryforward attributes that were generated prior to 2010 may still be adjusted upon examination by the Internal Revenue Service if used in a future period. No income tax returns are currently under examination by taxing authorities.

Stock-Based Compensation

The Company measures and recognizes compensation expense for all stock-based payment awards made to employees, officers and directors based on the estimated fair values of the awards as of the grant date. The Company records the value of the portion of the award that is ultimately expected to vest as expense over the requisite service periods. The Company also accounts for equity instruments issued to non-employees using a fair value approach under Accounting Standards Codification (ASC) subtopic 505-50. The Company values equity instruments and stock options granted using the Black-Scholes valuation model. The value of non-employee stock-based

compensation is subject to periodic adjustments as the underlying equity instruments vest and is recognized as an expense over the term of the related financing or the period over which services are received.

Basic and Diluted Net Loss per Share of Common Stock

The Company uses the two-class method to compute net loss per common share because the Company has issued securities, other than common stock, that contractually entitle the holders to participate in dividends and earnings of the Company. The two-class method requires earnings for the period to be allocated between common stock and participating securities based upon their respective rights to receive distributed and undistributed earnings. Holders of each series of the Company's redeemable convertible preferred stock are entitled to participate in distributions, when and if declared by the board of directors, that are made to common stockholders and, as a result, are considered participating securities.

Segment and Geographic Information

Operating segments are defined as components of an enterprise (business activity from which it earns revenue and incurs expenses) for which discrete financial information is available and regularly reviewed by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The Company's chief operating decision maker (CODM) is its Chief Executive Officer. The Company views its operations and manages its business as a single operating and reporting segment. All assets of the Company were held in the United States for the years ended December 31, 2012 and 2013.

Application of New or Revised Accounting Standards—Adopted

From time to time, the Financial Accounting Standards Board (the FASB) or other standard-setting bodies issue accounting standards that are adopted by the Company as of the specified effective date.

Effective January 2012, the Company adopted Accounting Standards Update (ASU) No. 2011-04, *Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRS* (ASU 2011-04). ASU 2011-04 represents the converged guidance of the FASB and the International Accounting Standards Board (IASB) on fair value measurement and has resulted in common requirements for measuring fair value and for disclosing information about fair value measurements, including a consistent meaning of the term fair value. The Company adopted ASU 2011-04 effective January 1, 2012 and has applied the provisions of ASU 2011-04 for all periods presented. This new guidance only affects how the Company reports fair value measures and, therefore, the adoption did not have a material impact on the Company's financial statements.

On April 5, 2012, President Obama signed the Jump-Start Our Business Startups Act (the JOBS Act) into law. The JOBS Act contains provisions that, among other things, reduce certain reporting requirements for an emerging growth company. As an emerging growth company, the Company may elect to adopt new or revised accounting standards when they become effective for non-public companies, which typically is later than public companies must adopt the standards. The Company has elected not to take advantage of the extended transition period afforded by the JOBS Act and, as a result, will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies.

In June 2014, the FASB issued ASU No. 2014-10, *Development Stage Entities* (Topic 915): *Elimination of Certain Financial Reporting Requirements, Including an Amendment to Variable Interest*

Entities Guidance in Topic 810, Consolidation (ASU 2014-10). This ASU removes all incremental financial reporting requirements for development stage entities, including the removal of Topic 915 from the FASB Accounting Standards Codification (ASC). The amendments in this ASU eliminate certain disclosure requirements to (1) present inception-to-date information in the statements of income, cash flows and shareholder equity, (2) label the financial statements as those of a development stage entity, (3) disclose a description of the development stage activities in which the entity is engaged and (4) disclose in the first year in which the entity is no longer a development stage entity that in prior years it had been in the development stage. The ASU clarifies that disclosures about risks and uncertainties required by Topic 275 also apply to entities that have not commenced planned principal operations.

The Company has elected to early adopt ASU 2014-10. The amendments primarily relate to disclosure matters and, therefore, have no impact on the Company's financial statements, other than the elimination of previously required disclosures including inception-to-date financial information.

Application of New or Revised Accounting Standards—Not Yet Adopted

In July 2013, the FASB issued ASU No. 2013-11, *Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exist* (ASU 2013-11). ASU 2013-11 amends the presentation requirements of ASC Topic 740 Income Taxes and requires an unrecognized tax benefit to be presented in the financial statements as a reduction to a deferred tax asset for a net operating loss carryforward, similar tax loss, or a tax credit carryforward. To the extent the tax benefit is not available at the reporting date under the governing tax law or if the entity does not intend to use the deferred tax asset for such purpose, the unrecognized tax benefit should be presented as a liability and not combined with deferred tax assets. ASU 2013-11 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2013. The amendments are to be applied to all unrecognized tax benefits that exist as of the effective date and may be applied retrospectively to each prior reporting period presented. The Company does not expect that the adoption of ASU 2013-11 will have a material impact on its financial statements as no uncertain tax positions existed as of December 31, 2013.

In June 2014, the FASB issued ASU 2014-12, *Compensation-Stock Compensation (Topic 718): Accounting for Share-Based Payments when the Terms of an Award Provide that a Performance Target Could Be Achieved After the Requisite Service Period* (ASU 2014-12). The amendments require that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition. ASU 2014-12 is effective for annual periods and interim periods within those annual periods beginning after December 15, 2015. Earlier adoption is permitted. Entities may apply ASU 2014-12 either (a) prospectively to all awards granted or modified after the effective date or (b) retrospectively to all awards with performance targets that are outstanding as of the beginning of the earliest annual period presented in the financial statements and to all new or modified awards thereafter. If retrospective transition is adopted, the cumulative effect of applying this ASU as of the beginning of the earliest annual period presented in the financial statements should be recognized as an adjustment to the opening retained earnings balance at that date. Additionally, if retrospective transition is adopted, an entity may use hindsight in measuring and recognizing the compensation cost. The Company currently is evaluating the impact of the adoption of ASU 2014-12 on its financial statements and disclosures.

In August 2014, the FASB issued ASU No. 2014-15, *Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern* (ASU 2014-15), which amends ASC Subtopic 205-40 to

provide guidance about management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related disclosures. Specifically, the amendments (1) provide a definition of the term "substantial doubt," (2) require an evaluation every reporting period, (3) provide principles for considering the mitigating effect of management's plans, (4) require certain disclosures when substantial doubt is alleviated as a result of consideration of management's plans, (5) require an express statement and other disclosures when substantial doubt is not alleviated and (6) require an assessment for a period of one year after the date that financial statements are issued. ASU 2014-15 is effective for fiscal years ending after December 15, 2016, and for annual periods and interim periods thereafter. The Company is currently evaluating the impact of the adoption of ASU 2014-15 on its financial statements and disclosures.

In May 2014, the FASB issued guidance codified in ASC 606, *Revenue Recognition—Revenue from Contracts with Customers*, which amends the guidance in former ASC 605, *Revenue Recognition*, and becomes effective beginning January 1, 2017. The Company is currently evaluating the impact of the provisions of ASC 606 on its financial statements and disclosures.

3. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consist of the following:

	December 31,	
	2012	2013
Prepaid lease payments	$ 5,405	$ –
Income tax receivable	27,571	20,427
Leased equipment deposit	–	41,760
Other current assets	34,098	8,783
Total	$67,074	$70,970

4. Property and Equipment

Property and equipment consists of the following:

	December 31,	
	2012	2013
Laboratory equipment	$ 508,904	$ 537,058
Computers and hardware	51,359	56,156
Furniture and office equipment	21,298	105,048
Leasehold improvements	7,159	6,226
Total property and equipment	588,720	704,488
Less: accumulated depreciation and amortization	(269,273)	(324,285)
Property and equipment, net	$ 319,447	$ 380,203

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

The Company leases various equipment under capital lease agreements. The assets under capital leases are included in property and equipment as follows:

	December 31,	
	2012	2013
Laboratory and computer equipment	$ 387,885	$ –
Furniture and office equipment	–	94,388
Less: accumulated depreciation and amortization	(179,543)	(3,146)
	$ 208,342	$91,242

The estimated useful lives of property and equipment are as follows:

Asset Category	Useful Life (in years)
Laboratory equipment	10
Computers and hardware	5-7
Furniture and office equipment	5-10
Leasehold improvements	10-15

Depreciation and amortization expense, including amounts pertaining to assets held under capital leases, was $62,564 and $67,724 for the years ended December 31, 2012 and 2013, respectively.

5. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses consist of the following:

	December 31,	
	2012	2013
Accounts payable	$ 301,845	$ 386,071
Accrued interest	–	151,989
Accrued banking fees	700,000	700,000
Accrued payroll	80,144	127,514
Total	$1,081,989	$1,365,574

6. Debt Obligations

Convertible Notes

From June 2013 through October 2013, the Company issued 10.0% unsecured convertible promissory notes (the Convertible Notes) for gross proceeds of $3,846,000. The Convertible Notes accrue interest from the date of issuance through the date of maturity, with such interest payable in cash upon maturity. The Convertible Notes do not have a stated maturity date and mature instead under various scenarios, such as the sale of substantially all of the assets of the Company, dissolution of the Company, failure to observe covenants, and voluntary or involuntary bankruptcy (the Put Option). The principal amount and accrued interest of the Convertible Notes automatically convert (the Conversion Feature) into subsequently issued equity securities if the Company issues equity securities in a transaction or series of related transactions that result in aggregate gross proceeds to the Company of at least $7,500,000 (a Qualified Financing). Upon a Qualified Financing, the principal

amounts of the Convertible Notes and all accrued interest automatically convert into the equity securities issued pursuant to the Qualified Financing at a conversion price equal to the per share price paid by the purchasers of such equity securities in the Qualified Financing.

In connection with the issuance of the Convertible Notes, the Company also issued warrants (the 2013 Warrants) to purchase 1,079,453 shares of the same class and series of equity securities issued in the Qualified Financing for an exercise price equal to the per share price paid by the purchasers of such equity securities in the Qualified Financing. The Company determined that the 2013 Warrants should be recorded as a liability and stated at fair value at each reporting period (Notes 9 and 12).

The Company accounted for the embedded Conversion Feature and Put Option in the Convertible Notes under the derivative accounting guidance. Under this guidance, a company may be required to bifurcate an embedded feature from its host instrument and account for the embedded derivative as a free-standing derivative financial instrument that is measured at fair value at issuance and adjusted to its current fair value at each period. The Company determined that the Conversion Feature and Put Option should be bifurcated from the Convertible Notes and recorded at fair value. The fair value of the Conversion Feature and Put Option was $1,150,000 and $1,360,000 at issuance and December 31, 2013, respectively (Note 12). Changes in fair value of the Conversion Feature and Put Option are recorded within fair value adjustment within other income (expense) in the statements of operations.

Line of Credit

The Company has a $50,000 credit agreement with a financial institution (the Line of Credit Agreement). As of December 31, 2012 and 2013, the Company had $10,639 and $15,155 available under the Line of Credit Agreement, respectively. The Line of Credit Agreement is collateralized by all of the Company's business assets as well as the personal guarantees of the Company's officers. The Line of Credit Agreement contains no financial covenants. Borrowings under the Line of Credit Agreement carry interest at a rate equal to the prime rate plus 1.75% per annum. The Company is required to make interest only payments on any draws under the Line of Credit Agreement. The interest rate under the Line of Credit Agreement was 5% for the years ended December 31, 2012 and 2013.

7. Commitments and Contingencies

Legal Matters

From time to time, the Company is involved in various legal proceedings arising in the normal course of business. For some matters, a liability is not probable or the amount cannot be reasonably estimated and therefore an accrual has not been made. However, for such matters when it is probable that the Company has incurred a liability and can reasonably estimate the amount, the Company accrues and discloses such estimates.

Litigation regarding the Company's product candidate, KP106, designed to treat the symptoms of attention deficit hyperactivity disorder, began in 2011 and was subsequently settled in March 2012 (Note 13).

Lease Agreements

The Company leases office and laboratory facilities in Iowa under a long-term non-cancelable operating lease. The Company's lease for its Iowa facilities expires in September 2016 and includes a renewal option that could extend the lease for an additional three years.

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

The Company leases various laboratory, computer and other office equipment that are accounted for as capital leases and that require ongoing payments including interest expense. The capital leases are financed through various financial institutions and are collateralized by the underlying assets. As of December 31, 2013, the interest rate for assets under remaining capital leases was 0.65%.

Rent expense for non-cancelable operating leases was $108,233 and $144,896 for the years ended December 31, 2012 and 2013, respectively.

Future minimum lease payments under capital leases and non-cancelable operating leases as of December 31, 2013 were as follows:

Year Ending December 31,	Capital Leases	Operating Leases
2014	$ 31,789	$ 93,648
2015	31,789	93,648
2016	26,492	70,236
Total minimum lease payments	90,070	$ 257,532
Less: amounts representing interest	(848)	
Total	$ 89,222	

8. Supply Arrangement

As of December 31, 2013, the Company has one manufacturing arrangement that involves potential future expenditures related to research and development.

In November 2009, the Company entered into a supply agreement with Johnson Matthey Inc. (JMI) whereby JMI has agreed to supply the Company with all of the KP201, the Company's NME prodrug of hydrocodone, necessary for clinical trials and commercial sale for a price equal to JMI's manufacturing cost and to provide process optimization and development services for KP201. The Company's most advanced product candidate, KP201/APAP, is a combination of KP201 and acetaminophen (APAP) and is under development and is intended to aid in the treatment of acute pain. KP201/APAP is designed to provide abuse-deterrent properties which will be useful to address issues such as opioid abuse. The Company intends to submit a New Drug Application (NDA) for KP201/APAP in the third quarter of 2015 under Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act. In 2012, the Company issued 564,516 fully vested shares of common stock to JMI in exchange for drug compounds delivered to the Company at that time under this agreement. The fair value of the shares was $440,322 and was recorded to research and development expense in the year ended December 31, 2012. No expense was recorded under this agreement for the year ended December 31, 2013. The Company must purchase all of its U.S. KP201 needs from JMI and JMI cannot supply KP201 to other companies. The term of the supply agreement extends as long as the Company holds a valid and enforceable patent for KP201 or until the tenth anniversary of KP201's commercial launch, whichever date is later. Upon the expiration of such term, the agreement will automatically renew for a period of two years unless either party provides 12 months prior notice of its intent not to renew. Under the agreement, JMI will receive a tiered-based royalty share on the net sales on the commercial sale of a Federal Drug Administration approved drug incorporating KP201. No reliable estimate of the future payments can be made at this time.

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

9. Redeemable Convertible Preferred Stock and Warrants

Authorized, Issued, and Outstanding Redeemable Convertible Preferred Stock

As of December 31, 2013, the Company was authorized to issue 55,000,000 shares of preferred stock. The following table summarizes authorized, issued and outstanding redeemable convertible preferred shares of the Company's no par value redeemable convertible preferred stock as of December 31, 2013:

	Authorized	Outstanding	Issue Price	Liquidation Preference
Series A Preferred	10,000,000	9,704,215	$ 0.40	$ 3,881,686
Series B Preferred	7,000,000	6,220,000	$ 0.62	3,856,400
Series C Preferred	33,000,000	18,557,408	$ 0.78	14,474,778
Undesignated	5,000,000	–		–
Total	55,000,000	34,481,623		$22,212,864

As of December 31, 2013, 5,000,000 shares of preferred stock were reserved for future designation.

Preferred Stock Activity

The following table summarizes redeemable convertible preferred stock activity for the years ended December 31, 2012 and 2013:

	Shares of		
	Series A Preferred	Series B Preferred	Series C Preferred
Balance, January 1, 2012	9,704,215	6,220,000	17,776,473
Issuance of Series C Preferred	–	–	864,268
Repurchase of Series C Preferred	–	–	(83,333)
Balance, December 31, 2012 and 2013	9,704,215	6,220,000	18,557,408

Series A Redeemable Convertible Preferred Stock (Series A Preferred)

On June 18, 2008, the Company adopted a resolution to amend its Articles of Incorporation to increase the number of authorized shares to 75,000,000, consisting of 50,000,000 shares of common stock, no par value, and 25,000,000 shares of preferred stock, no par value, of which 10,000,000 shares are designated as Series A Preferred.

On June 23, 2008, the Company entered into a private placement offering to secure additional equity capital. The private placement offering resulted in the issuance of 7,500,000 shares of Series A Preferred at $0.40 per share and the later issuance of warrants to purchase 750,000 shares of common stock at $0.52 per share. The gross proceeds of the private placement offering totaled $3,000,000 and direct offering costs were $403,757 resulting in net proceeds to the Company of $2,596,243. The warrants were separately issued to the placement agent for the private offering (Note 10).

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

During 2009, certain convertible debentures were exchanged for Series A Preferred. As a result, the Company issued 2,204,215 Series A Preferred shares for full redemption of the debentures.

Series B Redeemable Convertible Preferred Stock (Series B Preferred)

On April 22, 2009, the Company adopted a resolution to amend its Articles of Incorporation to authorize 7,000,000 shares of Series B Preferred, no par value.

On April 22, 2009, the Company entered into a private placement offering to secure additional equity capital. The private placement offering resulted in the issuance of 6,220,000 shares of Series B Preferred at $0.62 per share and the issuance of warrants to purchase 622,000 shares of common stock at $0.62 per share. The gross proceeds of the private placement offering totaled $3,856,400 and direct offering costs were $357,335, resulting in net proceeds to the Company of $3,499,065. The warrants were separately issued to the placement agent for the private offering (Note 10).

Series C Redeemable Convertible Preferred Stock (Series C Preferred)

On July 15, 2010, the Company adopted a resolution to amend its Articles of Incorporation to authorize 18,000,000 shares of Series C Preferred, no par value.

During 2010, the Company entered into a private placement offering to secure additional equity capital. In 2010, a total of 5,617,835 shares of Series C Preferred were sold at $0.78 per share. In conjunction with the private placement offering, the Company also issued a warrant to purchase 842,675 shares of common stock at $0.78 per share. The gross proceeds of the private placement offering totaled $4,381,916 and direct offering costs were $405,074, resulting in net proceeds to the Company of $3,976,842. The warrant was separately issued to the placement agent for the private offering (Note 10).

On July 15, 2011, the Company adopted a resolution to amend its Articles of Incorporation to increase the number of authorized shares of common stock, no par value, from 70,000,000 to 85,000,000 and Class C Preferred, no par value, from 18,000,000 to 33,000,000.

During 2011, the Company entered into a private placement offering to secure additional equity capital. The Company sold a total of 12,158,638 shares of Series C Preferred at $0.78 per share. In conjunction with the private placement offering, the Company also issued warrants to purchase 1,821,872 shares of common stock at $0.78 per share. The gross proceeds of the private placement offering totaled $9,483,738 and direct offering costs were $892,070, resulting in net proceeds to the Company of $8,591,668. The warrants were separately issued to the placement agent for the private offering.

During 2012, the Company sold a total of 864,268 shares of Series C Preferred at $0.78 per share. In conjunction with the private placement offering, the Company also issued warrants to purchase 123,230 shares of common stock at $0.78 per share. The gross proceeds of the private placement offering totaled $674,129 and direct offering costs were $148,636, resulting in net proceeds to the Company of $525,493. The warrants were separately issued to the placement agent for the private offering. In addition, 83,333 shares of Series C Preferred were repurchased from a former employee of the Company at $0.78 per share.

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Significant terms of the redeemable convertible preferred stock are as follows:

Conversion Rights

The Series A Preferred, Series B Preferred and Series C Preferred (together the Preferred Stock) is convertible on a one-to-one basis into common stock at the discretion of preferred stockholders. Upon a qualifying liquidation or capital event, all shares of Preferred Stock automatically convert into shares of common stock. The conversion rate of the Series A Preferred, the Series B Preferred and the Series C Preferred is subject to an anti-dilution adjustment for any issuances of common or preferred stock by the Company at a price per share less than the applicable conversion price of the Series A Preferred, Series B Preferred or the Series C Preferred, with exceptions for shares of common stock issued upon exercise of options granted pursuant to the Company's stock option plan or shares of common stock issued as dividends to the holders of the Preferred Stock.

Dividend Rights

Holders of Preferred Stock are entitled to receive dividends when and if declared by the Board of Directors in preference to any dividend paid to common stockholders. Such dividends are payable only when, and if, declared by the Board of Directors and are noncumulative.

Voting Rights

The Preferred Stock is non-voting except with respect to certain major decisions as listed in the Certificate of Incorporation.

Liquidation

Liquidation is deemed to occur if in the event of any liquidation, dissolution or winding up of the Company, whether voluntary or involuntary, as well as any change of control of the Company that includes (i) an acquisition of the Company in which the stockholders of the Company immediately prior to such transaction do not own a majority of the outstanding voting securities of the acquiring entity immediately following such transaction and (ii) a sale of all or substantially all of the assets of the Company.

Before any distribution or payment is made to any holder of common stock, Series A Preferred or Series B Preferred Stock, the holders of shares of Series C Preferred are entitled to be paid an amount equal to the liquidation preference amount with respect to each share of Series C Preferred. If the holders of Series C Preferred Stock have been paid in full the liquidation preference amounts to which they are entitled, then, before any distribution or payment is made to any holder of common stock or Series A Preferred, the holders of shares of Series B Preferred are entitled to be paid an amount equal to the liquidation preference amount with respect to each share of Series B Preferred. If the holders of Series C Preferred and Series B Preferred have been paid in full the liquidation preference amounts to which they are entitled, then, before any distribution or payment is made to any holder of common stock, the holders of shares of Series A Preferred are entitled to be paid an amount equal to the liquidation preference amount with respect to each share of Series A Preferred.

If, upon an event of liquidation, holders of the Preferred Stock shall have been paid in full the liquidation preference amounts to which they are entitled, the remaining assets and funds of the Company legally available for distribution, if any, will be distributed among the holders of the common stock and the Preferred Stock in proportion to the shares of common stock then held by them and the shares of common stock that they have the right to acquire upon conversion of the shares of Preferred Stock.

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

As a result of the existence of the deemed liquidation feature, the Company determined that all series of Preferred Stock are redeemable upon the occurrence of a deemed liquidation event. They are carried at initial fair value at each reporting period and excluded from stockholders' deficit on the accompanying balance sheets. If the occurrence of a deemed liquidation event becomes probable, all series of the Preferred Stock will be adjusted to liquidation value during that period.

Warrants on Equity Securities

During 2013, the Company issued $3,846,000 of Convertible Notes and the 2013 Warrants to purchase 1,079,453 shares of equity securities in a future financing meeting specified criteria (a Qualified Financing) (Note 6). The 2013 Warrants allow the holders to purchase shares of the same class and series of equity securities issued in the Qualified Financing for an exercise price equal to the per share price paid by the purchasers of such equity securities in the Qualified Financing. The 2013 Warrants, if unexercised, expire on the earlier of June 2, 2019 or upon a liquidation event.

The Company determined that the 2013 Warrants should be recorded as a liability and stated at fair value at each reporting period. At issuance, the 2013 Warrants had a fair value of $410,000, which was recorded as a non-current warrant liability on the balance sheet. At December 31, 2013, the fair value of the non-current warrant liability was $400,000. Changes to the fair value of the warrant liability are recorded within fair value adjustment within other income (expense) in the statements of operations. During the year ended December 31, 2013, the fair value adjustment of the warrant liability was $10,000.

10. Common Stock and Warrants on Common Stock

Authorized, Issued, and Outstanding Common Shares

The Company's common stock consists of one class, has no par value and consists of 85,000,000 authorized shares and 17,857,849 shares issued and outstanding at December 31, 2012 and 2013. At December 31, 2013, the Company had reserved authorized shares of common stock for future issuance as follows:

	Shares of Common Stock
Conversion of Series A Preferred	9,704,215
Conversion of Series B Preferred	6,220,000
Conversion of Series C Preferred	18,557,408
Conversion of Convertible Notes	5,125,627
2013 Warrants	1,079,453
Outstanding awards under Incentive Stock Plan	2,222,000
Outstanding common stock warrants	4,470,777
Possible future issuances under Incentive Stock Plan	2,484,667
Total common shares reserved for future issuance	49,864,147

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Common Stock Activity

The following table summarizes common stock shares activity for the years ended December 31, 2012 and 2013:

	Shares of Common Stock
Balance at January 1, 2012	17,293,333
Stock issued under supply agreement	564,516
Balance at December 31, 2012 and 2013	17,857,849

Liquidation Rights

In the event of any liquidation or dissolution of the Company, the holders of the common stock are entitled to share ratably with holders of the series of outstanding Preferred Stock, on an as-if-converted to common stock basis, in the remaining assets of the Company legally available for distribution after the payment of the full liquidation preference for all series of the outstanding Preferred Stock.

Dividends and Voting Rights

The holders of the common stock are entitled to receive dividends, when and if declared by the board of directors of the Company after all dividends on the Preferred Stock have been paid or funds have been set aside to pay such Preferred Stock dividends.

The holders of the common stock have the right to one vote per share of common stock.

Warrants on Common Stock

In connection with the issuances of Series A Preferred, Series B Preferred and Series C Preferred (Note 9), the Company issued warrants to purchase common stock to the underwriters as consideration for facilitating the private placements (Underwriter Warrants). The Underwriter Warrants were fully vested upon issuance and, if unexercised, expire on the earlier of the seventh anniversary of the issue date or upon the second anniversary of the first sale of securities to the public in an offering pursuant to an effective registration statement under the Securities Act. No Underwriter Warrants have been exercised since issuance and, as of December 31, 2013, the Company's outstanding Underwriter Warrants and related exercise price by issuance were as follows:

Issuance Date	Number of Underlying Shares	Exercise Price
2008/2009	750,000	$ 0.52
2009	622,000	$ 0.62
2010	842,675	$ 0.78
2011	1,821,872	$ 0.78
2012	123,230	$ 0.78
	4,159,777	

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

The Company determined that the Underwriter Warrants do not meet the criteria for equity classification and, consequently, the Underwriter Warrants were recorded as liabilities within the derivative and warrant liability on the balance sheets. These liabilities are adjusted to fair value at each reporting period (Note 12) with the change in fair value recorded within fair value adjustment within other income (expense) in the statements of operations.

At December 31, 2012 and 2013, the fair value of the Underwriter Warrants was $2,390,608 and $1,053,260, respectively.

11. Stock-Based Compensation

The Company has a share-based compensation plan (the Incentive Stock Plan or the Plan) that is designed to allow the Company to attract and retain highly qualified employees and directors. No stock options were exercised during the years ended December 31, 2012 and 2013.

Under the Plan, the Company may grant up to 5,000,000 awards of incentive stock, non-qualified stock options, and incentive stock options to employees, directors, and consultants. Of this amount, 2,484,667 shares were available for awards as of December 31, 2013. Options may take the form of either incentive stock options or non-qualified stock options. Options granted under the Plan generally vest over one year to three years and expire in seven to 10 years from the date of grant. Stock-based compensation expense recorded under the Plan is included in the following line items in the accompanying statements of operations:

	Year Ended December 31,	
	2012	2013
Research and development	$459,738	$ 29,296
General and administrative	8,253	104,449
	$467,991	$133,745

Stock Option Awards

The Company estimates the fair value of stock options using the Black-Scholes option-pricing model, which requires the use of subjective assumptions, including the expected term of the option, the current price of the underlying stock, the expected stock price volatility, expected dividend yield and the risk-free interest rate for the expected term of the option. The expected term represents the period of time the stock options are expected to be outstanding. Due to the lack of sufficient historical exercise data to provide a reasonable basis upon which to otherwise estimate the expected term of the stock options, the Company uses the simplified method to estimate the expected term for its “plain vanilla” stock options. Under the simplified method, the expected term of an option is presumed to be the mid-point between the vesting date and the end of the contractual term. Some options, for example those that have exercise prices in excess of the fair value of the underlying stock, are not considered “plain vanilla” stock options. For these options, the Company uses an expected term equal to the contractual term of the option. Expected volatility is based on historical volatilities for publicly traded stock of comparable companies over the estimated expected term of the stock options. The Company assumes no dividend yield because dividends are not expected to be paid in the near future, which is consistent with the Company’s history of not paying dividends.

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

The Company recognizes compensation expense related to stock-based payment transactions upon satisfaction of the requisite service or vesting requirements. Forfeitures are estimated at the time of grant and revised based on actual forfeitures, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Using the Black-Scholes option-pricing model, the weighted-average fair value of awards granted during the years ended December 31, 2012 and 2013 was $0.56 and $0.40 per share, respectively. The assumptions used to estimate fair value are as follows:

	Year Ended December 31,	
	2012	2013
Risk-free interest rate	0.65% - 0.97%	0.52% - 2.80%
Expected term (in years)	3.95 - 6.00	4.04 - 10.00
Expected volatility	63.13% - 68.22%	58.55% - 92.00%
Expected dividend yield	0%	0%

The activity under the Plan for the year ended December 31, 2013 is summarized as follows:

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding balance at January 1, 2013	1,687,000	$ 0.67	6.97	$179,300
Granted	640,000	$ 0.78		
Exercised	–	–		
Cancelled	(105,000)	$ 0.78		
Outstanding balance at December 31, 2013	2,222,000	$ 0.70	7.24	$ –
Exercisable at December 31, 2013	1,010,666	$ 0.60	5.25	$ –
Vested and expected to vest at December 31, 2013	1,534,427	$ 0.66	6.56	$ –

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Information regarding currently outstanding and exercisable options as of December 31, 2013 is as follows:

	Options Outstanding		Options Exercisable	
Exercise Price	Number of Shares	Weighted-Average Remaining Contractual Term (in years)	Number of Shares	Weighted-Average Remaining Contractual Term (in years)
$0.10	90,000	3.50	90,000	3.50
$0.40	155,000	4.54	155,000	4.54
$0.62	370,000	4.61	370,000	4.61
$0.78	1,607,000	8.31	395,666	6.52
	2,222,000	7.24	1,010,666	5.25

The total fair value of stock options vested during the years ended December 31, 2012 and 2013 was $129,767 and $173,579, respectively.

Unvested stock options as of December 31, 2012 and 2013 were as follows:

	Number of Unvested Shares As of December 31	
Exercise Price	2012	2013
$0.62	6,667	–
$0.78	835,332	1,711,334
	841,999	1,711,334

As of December 31, 2013, there was $205,187 of total unrecognized compensation cost related to unvested share-based compensation arrangements granted under the Plan. That compensation cost is expected to be recognized over a weighted-average period of 1.13 years.

During 2012, certain executives were granted 600,000 performance-based stock options. These performance-based awards will vest if the Company achieves certain strategic initiatives, such as the achievement of certain clinical milestones or the occurrence of a liquidity event for stockholders. Compensation expense is recognized for the Company's performance-based grants when the milestone is met or when it is probable that the milestone will be achieved, as determined on a case by case basis depending upon the milestone. The strategic initiatives set forth in these grants were not achieved or probable of achievement and, as such, the Company did not record any compensation expense for these awards for the years ended December 31, 2012 and 2013.

Additionally, during 2013, the Company promised an executive the right to receive 300,000 shares of common stock and 1,200,000 stock options if the Company achieves certain strategic initiatives, such as the closing of certain financing transactions or the occurrence of a change of control transaction.

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

12. Fair Value of Financial Instruments

The carrying amounts of certain financial instruments, including cash and cash equivalents and accounts payable, approximate their respective fair values due to the short-term nature of such instruments. The carrying amount of the line of credit approximates fair value due to the variable interest rate in that instrument.

The fair value of the Company's Convertible Notes was $3,650,000 at December 31, 2013. The Convertible Notes fall within Level 3 of the fair value hierarchy as their value is based on the credit worthiness of the Company, which is an unobservable input.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The Company evaluates its financial assets and liabilities subject to fair value measurements on a recurring basis to determine the appropriate level in which to classify them for each reporting period. This determination requires significant judgments to be made. The following table summarizes the conclusions reached regarding fair value measurements as of December 31, 2012 and 2013:

	Balance at December 31, 2012	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Underwriter Warrant liability	$2,390,608	$ –	$ –	$2,390,608
	$2,390,608	$ –	$ –	$2,390,608

	Balance at December 31, 2013	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Underwriter Warrant liability	$1,053,260	$ –	$ –	$1,053,260
Preferred stock warrant liability	400,000	–	–	400,000
Conversion Feature and Put Option	1,360,000	–	–	1,360,000
	$2,813,260	$ –	$ –	$2,813,260

The Company's Underwriter Warrant liability, preferred stock warrant liability and the Conversion Feature and Put Option on the Convertible Notes are measured at fair value on a recurring basis. As of December 31, 2012, the Underwriter Warrant liability is reported on the balance sheet in derivative and warrant liability. As of December 31, 2013, the Underwriter Warrant liability, the preferred stock warrant liability and the Conversion Feature and Put Option are reported on the balance sheet in derivative and warrant liability. The Company used a Monte Carlo simulation to value the Underwriter Warrant liability at December 31, 2012 and 2013. The Company used the Black-Scholes option pricing model and a Monte Carlo simulation to value the preferred stock warrant liability at issuance and December 31, 2013, respectively. The Company used a Monte Carlo simulation to value the Conversion Feature and Put Option at issuance and December 31, 2013. Significant unobservable inputs used in measuring the fair value of financial instruments included the Company's estimated enterprise value, an estimate of the timing of a liquidity event, a present value discount rate, a risk-free rate of interest and an estimate of the Company's stock volatility using the volatilities of guideline peer companies. Changes in the fair value of the Underwriter Warrant liability, the preferred stock warrant liability and the Conversion

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

Feature and Put Option are reflected in the statements of operations as a fair value adjustment. A 10% increase in the enterprise value would result in a $291,185 increase in the estimated fair value of the Underwriter Warrant liability at December 31, 2012. A 10% increase in the enterprise value would result in a $158,891 increase in the estimated fair value of the Underwriter Warrant liability and a $60,000 increase in the estimated fair value of the preferred stock warrant liability, while an increase of 100 basis points in the discount rate would result in a $610,000 increase in the estimated fair value of the Conversion Feature and Put Option at December 31, 2013.

A reconciliation of the beginning and ending balances for the derivative and warrant liability measured at fair value on a recurring basis using significant unobservable inputs (Level 3) is as follows:

	2012	2013
Balance at January 1	$2,446,499	$ 2,390,608
Issuance of warrants	72,706	410,000
Issuance of Convertible Notes	–	1,150,000
Adjustment to fair value	(128,597)	(1,137,348)
Balance at December 31	$2,390,608	$ 2,813,260

13. Gain on Sale of Assets

The Company was subject to litigation regarding its product candidate, KP106, starting in 2011, which the Company subsequently settled in March 2012. Under the settlement, the Company sold its rights to KP106, its rights to certain other amphetamine compounds, as well as related intellectual property and patent rights, to the plaintiff for proceeds of $5,066,093. Upon finalization of the settlement agreement in March 2012, the Company recorded a gain on the sale of $5,066,093.

14. Income Taxes

The Company's financial statements include a total state tax benefit of $37,228 and $19,544 on a loss before income taxes of $107,644 and $5,245,989 for the years ended December 31, 2012 and 2013, respectively. A reconciliation of the difference between the benefit for income taxes and income taxes at the statutory U.S. federal income tax rate is as follows:

	Year Ended December 31,			
	2012		2013	
Federal statutory rate	$ (36,599)	34.0%	$ (1,783,637)	34.0%
Effect of:				
Change in valuation allowance	281,144	(261.1)	2,013,636	(38.4)
State income taxes	(18,076)	16.8	(394,912)	7.5
Underwriter Warrant liability	(43,723)	40.6	(454,698)	8.7
State research and development credit	(37,228)	34.6	(19,544)	0.4
Federal research and development credit	(170,012)	157.9	(132,681)	2.5
Preferred stock warrant liability	–	–	136,000	(2.6)
Conversion Feature and Put Option on Convertible Notes	–	–	462,400	(8.8)
Interest expense	–	–	51,676	(1.0)
Other	(12,734)	11.8	102,216	(1.9)
Federal income tax provision effective rate	$ (37,228)	34.6%	$ (19,544)	0.4%

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

The components of deferred tax assets and liabilities are as follows:

	December 31, 2012	December 31, 2013
Deferred tax assets relating to:		
Net operating loss carryforwards	$ 7,666,945	$ 9,606,253
Research and development tax carryforward	766,132	898,813
Compensation	69,256	75,872
Total gross deferred tax assets	8,502,333	10,580,938
Deferred tax liabilities relating to:		
Property and equipment	110,922	175,891
Total gross deferred tax liabilities	110,922	175,891
Deferred assets less liabilities	8,391,411	10,405,047
Valuation allowance	(8,391,411)	(10,405,047)
Net deferred tax asset (liability)	$ –	$ –

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. Based upon the level of historical taxable income and projections for future taxable income over the periods in which the deferred tax assets are deductible, management believes it is more likely than not that the Company will not realize the benefits of these deductible differences in the future.

The Company had the following federal net operating loss carryforward and research activities credits as of December 31, 2013:

Year Incurred	Net Operating Loss	Research Activities Credit	Expiration
2007	$ 454,280	$ 29,977	2027
2008	1,178,096	64,677	2028
2009	3,060,387	175,635	2029
2010	3,423,056	149,246	2030
2011	9,928,651	176,585	2031
2012	–	170,012	2032
2013	4,521,783	132,681	2033
	$22,566,253	$898,813	

The Company also has certain state net operating loss carryforwards, primarily from Iowa, where $22,487,989 of net operating loss carryforwards exist that expire between 2027 and 2033. Due to potential ownership changes that may have occurred or would occur in the future, IRC Section 382 may place additional limitations on the Company's ability to utilize the net operating loss carryforward.

Financial Interpretation No. 48 (FIN 48), *Accounting for Uncertainty in Income Taxes*, uses the term "more likely than not" to evaluate whether or not a tax position will be sustained upon examination. The Company has not identified any tax positions that do not meet the more likely than not threshold.

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

15. Net Loss Per Share

Under the two-class method, for periods with net income, basic net income per common share is computed by dividing the net income attributable to common stockholders by the weighted average number of shares of common stock outstanding during the period. Net income attributable to common stockholders is computed by subtracting from net income the portion of current year earnings that participating securities would have been entitled to receive pursuant to their dividend rights had all of the year's earnings been distributed. No such adjustment to earnings is made during periods with a net loss as the holders of the participating securities have no obligation to fund losses. Diluted net loss per common share is computed under the two-class method by using the weighted average number of shares of common stock outstanding plus, for periods with net income attributable to common stockholders, the potential dilutive effects of stock options and warrants. In addition, the Company analyzes the potential dilutive effect of the outstanding participating securities under the if-converted method when calculating diluted earnings per share in which it is assumed that the outstanding participating securities convert into common stock at the beginning of the period. The Company reports the more dilutive of the approaches (two-class or if-converted) as its diluted net income per share during the period. Due to the existence of net losses for the years ended December 31, 2012 and 2013, basic and diluted loss per share were the same, as the effect of potentially dilutive securities would have been anti-dilutive.

The following table summarizes the computation of basic and diluted net loss and net loss per share of the Company:

	Year Ended December 31,	
	2012	2013
Net loss—basic and diluted	$ (70,416)	$ (5,226,445)
Weighted-average number of common shares—basic and diluted	17,843,967	17,857,849
Net loss per share—basic and diluted	$ (0.00)	$ (0.29)

Diluted net loss per share is the same as basic net loss per share for all periods presented because the effects of potentially dilutive items were anti-dilutive given the Company's net loss. The following securities, presented on a common stock equivalent basis, have been excluded from the calculation of weighted average common shares outstanding because their effect is anti-dilutive:

	Year Ended December 31,	
	2012	2013
Redeemable convertible preferred stock:		
Series A	9,704,215	9,704,215
Series B	6,220,000	6,220,000
Series C	18,557,408	18,557,408
Warrants to purchase common stock	4,470,777	4,470,777
Awards under Incentive Stock Plan	1,687,000	2,222,000
Convertible Notes	–	5,125,627
2013 Warrants	–	1,079,453

KEMPHARM, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Pro Forma Net Loss Per Share (unaudited)

The denominator used in computing pro forma net loss per share for the year ended December 31, 2013 have been adjusted to assume the conversion of the principal amount and accrued interest of the Convertible Notes at the time of issuance or at the time the interest is accrued and the conversion of all outstanding shares of Preferred Stock into common stock as of the beginning of the year or at the time of issuance, if later. The calculation of pro forma net loss per share is as follows:

	December 31, 2013
Numerator:	
Historical net loss	$ (5,226,445)(a)
Pro forma numerator for basic and diluted loss per share	$ (5,226,445)
Denominator:	
Historical denominator for basic and diluted net loss per share—weighted average shares	17,857,849(b)
Plus: conversion of redeemable convertible preferred stock to common stock	34,481,623(c)
Plus: conversion of Convertible Notes	1,986,131(d)
Pro forma denominator for basic and diluted net loss per share	54,325,603
Pro forma basic and diluted loss per share	$ (0.10)

(a) Represents actual net loss.
(b) Represents actual weighted average common shares outstanding—basic.
(c) Represents the number of shares of common stock that would have been outstanding had all outstanding shares of the Preferred Stock converted into shares of common stock as of January 1, 2013 or the issuance dates of the Preferred Stock, if later, computed on a weighted average basis.
(d) Represents the number of shares of common stock that would have been outstanding had the principal amount and accrued interest of the Convertible Notes converted into shares of common stock as of the issuance date of the Convertible Notes or at the time the interest is accrued, computed on a weighted average basis.

16. Employee Benefit Plan

The Company has a 401(k) retirement plan (the 401(k) Plan) that covers all employees. The Company may provide a discretionary match with a maximum amount of 4% of the participant's compensation, which vests immediately. The Company made matching contributions under the 401(k) Plan of $46,627 and $49,901 for the years ended December 31, 2012 and 2013, respectively.

The Company has a discretionary profit sharing plan (the Profit Sharing Plan) that covers all employees. Employees become eligible participants in the Profit Sharing Plan once they have provided three years of service to the Company. The Company made no contributions to the Profit Sharing Plan in 2012 or 2013.

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

17. Subsequent Events

The Company evaluated subsequent events through December 19, 2014, the date on which the December 31, 2013 financial statements were available to be issued. There are no significant events that require disclosure in these financial statements, except as follows:

Debt Obligations

On June 2, 2014, the Company entered into a $60,000,000 facility agreement (the Deerfield Facility Agreement) with Deerfield Private Design Fund III, LP (Deerfield). The first payment to the Company under the terms of the Deerfield Facility Agreement consisted of a term loan of $15.0 million (the Term Notes) and a senior secured loan of $10.0 million (the Deerfield Convertible Notes). All loans under the Deerfield facility bear interest at 9.75% per annum. The Company issued to Deerfield a warrant to purchase 14,423,076 shares of Series D redeemable convertible preferred stock (Series D Preferred) at an exercise price of $0.78 per share, which is exercisable until June 2, 2024. In addition, the Company issued to Deerfield 1,923,077 shares of Series D Preferred as consideration for the loans provided to the Company under the Deerfield facility.

The Company must repay one-third of the outstanding principal amount of all debt issued under the Deerfield Facility Agreement on the fourth and fifth anniversaries of the Deerfield Facility Agreement. The Company is then obligated to repay the balance of the outstanding principal amount on February 14, 2020.

Interest accrued on outstanding debt under the Deerfield facility is due quarterly in arrears. Upon notice to Deerfield, the Company may choose to have one or more of the first eight of such scheduled interest payments added to the outstanding principal amount of the debt issued under the Deerfield facility, provided that all such interest will be due on July 1, 2016.

Deerfield is obligated to provide three additional tranches upon the Company's request and after the satisfaction of specified conditions, including the FDA's acceptance of an NDA for KP201/APAP and, for the final two tranches, the subsequent approval for its commercial sale.

Under the terms of the Deerfield Facility Agreement future tranches are as follows:

The second tranche consists of a $10,000,000 term loan that bears interest at 9.75% and a warrant to purchase 9,615,385 shares of Series D Preferred at an exercise price of $0.78 per share.

The third and fourth tranches each consist of a $12,500,000 term loan that bears interest at 9.75% and a warrant exercisable for the number of shares equal to 60% of the principal amount of such disbursement divided by the volume weighted average sales price of the Company's common stock for the 20 consecutive trading days immediately prior to the date of such disbursement with an exercise price per share equal to such weighted average sales price.

Conversion of Convertible Notes into Preferred Stock

In accordance with the terms of the Convertible Notes, and effected by the written consent of the holders of a majority of the outstanding principal of such notes, on June 2, 2014, the outstanding principal balance of the Convertible Notes of $3,846,000 and the related accrued interest of $313,205 converted into 5,332,348 shares of Series D Preferred.

Legal Proceedings

In 2014, a former financial advisor and current warrant holder of the Company filed a request with the Iowa District Court in response to a declaratory judgment action initiated by the Company during 2013, to declare valid a purported right of first refusal to serve as the Company's exclusive financial

advisor for specified strategic transactions and to receive fees for the specified strategic transactions irrespective of whether any such specified transaction occurred during or after the term of the financial advisor's service agreement. A trial date for this matter has been scheduled for August 2015 and the Company is unable to predict the timing or outcome of this litigation as of the date of this report. However, if it is determined that such purported right of first refusal and right to receive a cash fee related to any such specified strategic transactions are valid, then the Company could be required to pay the counterparty a portion of the consideration or proceeds received in any such specified strategic transaction, including the Company's IPO and future capital raising transactions.

KEMPHARM, INC.

UNAUDITED CONDENSED BALANCE SHEETS

	December 31, 2013	September 30, 2014 (unaudited)	Pro forma September 30, 2014 (unaudited)
Assets			
Current assets:			
Cash and cash equivalents	$ 1,968,632	$ 19,022,563	$ 19,022,563
Prepaid expenses and other current assets	70,970	69,329	69,329
Total current assets	2,039,602	19,091,892	19,091,892
Debt issuance costs	–	1,551,577	1,551,577
Property and equipment, net	380,203	341,520	341,520
Other long-term assets	9,179	546,364	546,364
Total assets	$ 2,428,984	$ 21,531,353	$ 21,531,353
Liabilities, redeemable convertible preferred stock, and stockholders' deficit			
Current liabilities:			
Accounts payable and accrued expenses	$ 1,365,574	$ 3,532,580	$ 3,532,580
Current portion of capital lease obligation	31,303	31,456	31,456
Convertible notes	3,846,000	–	–
Total current liabilities	5,242,877	3,564,036	3,564,036
Convertible notes, net of discount	–	7,077,966	7,077,966
Term notes, net of discount	–	10,616,950	10,616,950
Line of credit	34,845	–	–
Derivative and warrant liability	2,813,260	12,744,802	12,744,802
Capital lease obligation, net of current portion	57,919	34,308	34,308
Total liabilities	8,148,901	34,038,062	34,038,062
Commitments and contingencies (Note 4)			
Redeemable convertible preferred stock:			
Series A redeemable convertible preferred stock, $0.0001 par value; 10,000,000 and 9,705,000 shares authorized, 9,704,215 shares issued and outstanding as of December 31, 2013 and September 30, 2014; 0 shares issued and outstanding pro forma	3,342,849	3,342,849	–
Series B redeemable convertible preferred stock, $0.0001 par value; 7,000,000 and 6,220,000 shares authorized, 6,220,000 shares issued and outstanding as of December 31, 2013 and September 30, 2014; 0 shares issued and outstanding pro forma	3,312,465	3,312,465	–
Series C redeemable convertible preferred stock, $0.0001 par value; 33,000,000 and 18,558,000 shares authorized, 18,557,408 shares issued and outstanding as of December 31, 2013 and September 30, 2014; 0 shares issued and outstanding pro forma	11,892,066	11,892,066	–
Series D redeemable convertible preferred stock, $0.0001 par value; 0 and 75,000,000 shares authorized, 0 and 7,255,425 shares issued and outstanding as of December 31, 2013 and September 30, 2014, respectively; 0 shares issued and outstanding pro forma	–	5,659,232	–
Total redeemable convertible preferred stock	18,547,380	24,206,612	–
Stockholders' deficit:			
Common stock, no par value, 85,000,000 shares authorized, 17,857,849 shares issued and outstanding as of December 31, 2013; $0.0001 par value, 140,000,000 shares authorized, 17,857,849 and 59,594,897 shares issued and outstanding as of September 30, 2014 and September 30, 2014 pro forma, respectively	1,438,302	1,786	5,960
Additional paid-in capital	–	1,605,681	25,808,119
Accumulated deficit	(25,705,599)	(38,320,788)	(38,320,788)
Total stockholders' deficit	(24,267,297)	(36,713,321)	(12,506,709)
Total liabilities, redeemable convertible preferred stock, and stockholders' deficit	$ 2,428,984	$ 21,531,353	$ 21,531,353

See accompanying notes to financial statements.

KEMPHARM, INC.

UNAUDITED CONDENSED STATEMENTS OF OPERATIONS

	Nine Months Ended September 30,	
	2013	2014
Revenue	$ –	$ –
Operating expenses:		
Research and development	2,573,028	6,005,818
General and administrative	947,226	2,949,339
Total operating expenses	3,520,254	8,955,157
Loss from operations	(3,520,254)	(8,955,157)
Other income (expense):		
Gain on extinguishment of debt	–	1,900,000
Interest expense	(1,013,235)	(1,611,005)
Fair value adjustment	1,091,012	(4,001,542)
Interest and other income	42,481	3,863
Total other income (expense)	120,258	(3,708,684)
Loss before income taxes	(3,399,996)	(12,663,841)
Income tax benefit	14,550	48,652
Net loss	$ (3,385,446)	$(12,615,189)
Net loss per share:		
Basic and diluted	$ (0.19)	$ (0.71)
Basic and diluted, pro forma		$ (0.22)
Weighted average common shares outstanding:		
Basic and diluted	17,857,849	17,857,849
Basic and diluted, pro forma		58,365,253

See accompanying notes to financial statements.

KEMPHARM, INC.

UNAUDITED CONDENSED STATEMENT OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT

	Redeemable Convertible Preferred Stock Series					Common Stock	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	A	B	C	D	Total				
Balance as of January 1, 2014	$3,342,849	$3,312,465	$11,892,066	$ –	$18,547,380	$ 1,438,302	$ –	$(25,705,599)	$(24,267,297)
Net loss	–	–	–	–	–	–	–	(12,615,189)	(12,615,189)
Adjustment for change in par value	–	–	–	–	–	(1,436,516)	1,436,516	–	–
Stock-based compensation expense	–	–	–	–	–	–	169,165	–	169,165
Conversion of 2013 Convertible Notes into Series D Preferred	–	–	–	4,159,232	4,159,232	–	–	–	–
Issuance of Series D Preferred as financing fee	–	–	–	1,500,000	1,500,000	–	–	–	–
Balance as of September 30, 2014	$3,342,849	$3,312,465	$11,892,066	$5,659,232	$24,206,612	$ 1,786	$1,605,681	$(38,320,788)	$(36,713,321)

See accompanying notes to financial statements.

KEMPHARM, INC.

UNAUDITED CONDENSED STATEMENTS OF CASH FLOWS

	Nine Months Ended September 30,	
	2013	2014
Cash flows from operating activities:		
Net loss	$(3,385,446)	$(12,615,189)
Adjustments to reconcile net loss to net cash used in operating activities:		
Loss (gain) on sale or disposal of assets	11,876	(3,031)
Gain on extinguishment of debt	–	(1,900,000)
Depreciation and amortization expense	49,498	55,873
Fair value adjustment	(1,091,012)	4,001,542
Amortization of debt issuance costs and debt discount	946,866	636,406
Stock-based compensation expense	109,101	169,165
Non-cash interest expense	62,638	972,265
Change in assets and liabilities:		
Prepaid expenses and other current assets	(32,291)	(535,544)
Accounts payable and accrued expenses	348,860	1,507,973
Net cash used in operating activities	(2,979,910)	(7,710,540)
Cash flows from investing activities:		
Proceeds from sale of assets	2,641	5,000
Purchases of property and equipment	(33,600)	(19,159)
Net cash used in investing activities	(30,959)	(14,159)
Cash flows from financing activities:		
Repayments of line of credit	(3,391)	(34,845)
Proceeds from issuance of debt	2,751,200	25,000,000
Payment of debt issuance costs	–	(163,067)
Repayments of obligations under capital lease	(40,991)	(23,458)
Net cash provided by financing activities	2,706,818	24,778,630
Increase (decrease) in cash and cash equivalents	(304,051)	17,053,931
Cash and cash equivalents, beginning of period	2,541,687	1,968,632
Cash and cash equivalents, end of period	$ 2,237,636	$ 19,022,563
Supplemental cash flow information:		
Cash paid for interest	$ 3,731	$ 2,335
Non-cash activities:		
Issuance of 2013 Warrants and Deerfield Warrant	$ 248,857	$ 7,610,000
Deerfield Put Option on Deerfield Warrant	$ –	$ 220,000
Conversion Feature on 2013 Convertible Notes	$ 698,010	$ –
Issuance of Series D Preferred as transaction fee	$ –	$ 1,500,000
Conversion of 2013 Convertible Notes into Series D Preferred	$ –	$ 6,059,232

See accompanying notes to financial statements.

KEMPHARM, INC.

NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS

1. Description of Business and Basis of Presentation

KemPharm, Inc. (the Company) is a clinical-stage specialty pharmaceutical company engaged in the discovery and development of proprietary new molecular entity (NME) prodrugs. The Company was formed on October 26, 2006 and incorporated in Iowa. Through the use of its Ligand Activated Therapy (LAT) platform technology the Company is able to initiate and pursue the development of improved versions of approved and widely-prescribed drugs.

Domicile Change

During the nine months ended September 30, 2014, the Board of Directors unanimously approved and authorized the Company to change its domicile from Iowa to Delaware. The domicile change became effective on May 30, 2014.

Concurrent with the domicile change, the Company amended its Certificate of Incorporation to increase the number of its authorized shares of capital stock and create a par value for the shares. Following the amendment, the Company is authorized to issue 140,000,000 shares of common stock, par value $0.0001 per share, and 109,483,000 shares of preferred stock, par value $0.0001 per share.

2. Summary of Significant Accounting Policies

There have been no material changes to the significant accounting policies previously disclosed in the audited financial statements and related notes for the year ended December 31, 2013 appearing elsewhere in this prospectus.

Unaudited Interim Financial Information

The accompanying unaudited financial statements and notes have been prepared in accordance with accounting principles generally accepted in the United States (US GAAP) as contained in the Financial Accounting Standards Board (the FASB) Accounting Standards Codification (the Codification or ASC) for interim financial information. In the opinion of management, the interim financial information includes all adjustments of a normal recurring nature necessary for a fair presentation of the results of operations, financial position and cash flows. The results of operations for the nine months ended September 30, 2014 are not necessarily indicative of the results for the full year or the results for any future periods. These financial statements should be read in conjunction with the audited financial statements and related notes for the year ended December 31, 2013 appearing elsewhere in this prospectus.

Unaudited Pro Forma Presentation

The unaudited pro forma net loss per share for the nine months ended September 30, 2014 assumes (i) the conversion of the principal amount and accrued interest of certain convertible notes as of January 1, 2014 or at the time the interest is accrued, and (ii) the conversion of all outstanding shares of redeemable convertible preferred stock as of January 1, 2014 or the time of issuance, if later, into an aggregate of 41,737,048 shares of common stock upon the completion of an initial public offering (IPO) (Note 10).

The Company believes that the unaudited pro forma information is material to investors because certain convertible notes converted into redeemable convertible preferred stock during the nine months ended September 30, 2014 and the conversion of the redeemable convertible preferred stock into common stock will occur upon the closing of an IPO and, therefore, the disclosure provides a measure of total liabilities, stockholders' deficit and net loss per share that is comparable to what the Company will report as a public company.

KEMPHARM, INC.

NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS (CONTINUED)

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the Company to make estimates and assumptions that affect the amounts reported in the unaudited financial statements and accompanying notes. Actual results could differ from those estimates.

On an ongoing basis, the Company evaluates its estimates, including those related to the useful lives of property and equipment, the fair value of the Company's common stock and assumptions used for purposes of determining stock-based compensation, income taxes and the fair value of the derivative and warrant liability, among others. The Company bases its estimates on historical experience and on various other assumptions that it believes to be reasonable, the results of which form the basis for making judgments about the carrying value of assets and liabilities.

Concentration of Credit Risk

Financial instruments, which potentially expose the Company to concentrations of credit risk, consist principally of cash on deposit with multiple financial institutions, the balances of which frequently exceed insured limits.

Deferred Offering Costs

Upon the consummation of the IPO, deferred offering costs will be offset against the proceeds of the offering and included in stockholders' deficit. If the offering is terminated, the deferred offering costs will be expensed immediately. Deferred offering costs of $0 and $0.5 million, consisting primarily of legal and accounting fees, are included in other long-term assets on the balance sheets as of December 31, 2013 and September 30, 2014, respectively.

Basic and Diluted Net Loss per Share of Common Stock

The Company uses the two-class method to compute net loss per common share because the Company has issued securities, other than common stock, that contractually entitle the holders to participate in dividends and earnings of the Company. The two-class method requires earnings for the period to be allocated between common stock and participating securities based upon their respective rights to receive distributed and undistributed earnings. Holders of each series of the Company's redeemable convertible preferred stock are entitled to participate in distributions, when and if declared by the board of directors, that are made to common stockholders and, as a result, are considered participating securities.

Segment and Geographic Information

Operating segments are defined as components of an enterprise (business activity from which it earns revenue and incurs expenses) for which discrete financial information is available and regularly reviewed by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The Company's chief operating decision maker (CODM) is its Chief Executive Officer. The Company views its operations and manages its business as a single operating and reportable segment. All assets of the Company were held in the United States for the nine months ended September 30, 2013 and 2014.

KEMPHARM, INC.

NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS (CONTINUED)

3. Debt Obligations

Deerfield Facility Agreement

On June 2, 2014, the Company entered into a $60,000,000 facility agreement (the Deerfield Facility Agreement) with Deerfield Private Design Fund III, LP (Deerfield). The first payment to the Company under the terms of the Deerfield Facility Agreement consisted of a term loan of $15.0 million (the Term Notes) and a senior secured loan of $10.0 million (the Deerfield Convertible Notes). All loans issued under the Deerfield facility bear interest at 9.75% per annum. The Company also issued to Deerfield a warrant to purchase 14,423,076 shares of Series D redeemable convertible preferred stock (Series D Preferred) at an exercise price of $0.78 per share, which is exercisable until June 2, 2024 (the Deerfield Warrant). In the event that a Major Transaction occurs, as defined below, Deerfield may require the Company redeem the Deerfield Warrant for a cash amount equal to the Black-Scholes value of the portion of the Deerfield Warrant to be redeemed (the Put Option). A Major Transaction is (i) a consolidation, merger, exchange of shares, recapitalization, reorganization, business combination or other similar event; (ii) the sale or transfer in one transaction or a series of related transactions of all or substantially all of the assets of the Company; (iii) a third-party purchase, tender or exchange offer made to the holders of outstanding shares, such that following such purchase, tender or exchange offer a change of control has occurred; (iv) the liquidation, bankruptcy, insolvency, dissolution or winding-up affecting the Company; (v) after an IPO, the shares of common stock cease to be listed on any eligible market; and (vi) at any time after an IPO, the shares of common stock cease to be registered under Section 12 of the Exchange Act.

In addition, the Company issued to Deerfield 1,923,077 shares of Series D Preferred as consideration for the loans provided to the Company under the Deerfield facility. The Company recorded the fair value of the shares of Series D Preferred of $1,500,000, to debt issuance costs on the date of issuance. The Company recorded the fair value of the Deerfield Warrant of $7,610,000 and the fair value of the embedded Put Option of $220,000 to debt discount on the date of issuance. The debt issuance costs and debt discount are amortized over the term of the related debt and the expense is recorded as interest expense in the statements of operations.

The Company must repay one-third of the outstanding principal amount of all debt issued under the Deerfield Facility Agreement on the fourth and fifth anniversaries of the Deerfield Facility Agreement. The Company is then obligated to repay the balance of the outstanding principal amount on February 14, 2020.

Interest accrued on outstanding debt under the Deerfield facility is due quarterly in arrears. Upon notice to Deerfield, the Company may choose to have one or more of the first eight of such scheduled interest payments added to the outstanding principal amount of the debt issued under the Deerfield facility, provided that all such interest will be due on July 1, 2016.

Deerfield is obligated to provide three additional tranches upon the Company's request and after the satisfaction of specified conditions, including the FDA's acceptance of a New Drug Application for KP201/APAP and, for the final two tranches, the subsequent approval for its commercial sale.

As of September 30, 2014, borrowings available to the Company under the Deerfield Facility Agreement were $35,000,000. Under the terms of the Deerfield Facility Agreement, future tranches to the Company are as follows:

- The second tranche consists of a $10,000,000 term loan that bears interest at 9.75% and a warrant to purchase 9,615,385 shares of Series D Preferred at an exercise price of $0.78.

KEMPHARM, INC.

NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS (CONTINUED)

- The third and fourth tranches each consist of a $12,500,000 term loan that bears interest at 9.75% and a warrant exercisable for the number of shares equal to 60% of the principal amount of such disbursement divided by the volume weighted average sales price of the Company's common stock for the 20 consecutive trading days immediately prior to the date of such disbursement with an exercise price per share equal to such weighted average sales price.

Deerfield may convert all or any portion of the outstanding principal and any accrued but unpaid interest on the Deerfield Convertible Notes into shares of Series D Preferred at an initial conversion price of $0.78 per share. At its option, the Company may convert the outstanding principal and accrued interest under the Deerfield Convertible Notes into shares of Series D Preferred at an initial conversion price of $0.78 per share if either of the following occurs prior to June 30, 2016: (i) the FDA has approved, without requiring the performance of an efficacy study, the NDA for KP201/APAP for the treatment of acute pain; or (ii) the FDA has accepted the NDA for KP201/APAP for review and a qualified initial public offering, as defined in the Deerfield Facility Agreement, has occurred.

Conversion of 2013 Convertible Notes into Series D Preferred

From June 2013 through October 2013, the Company issued 10.0% unsecured convertible promissory notes (the 2013 Convertible Notes) for gross proceeds of $3,846,000. The 2013 Convertible Notes do not have a stated maturity date and mature instead under various scenarios, such as the sale of substantially all of the assets of the Company, dissolution of the Company, failure to observe covenants, and voluntary or involuntary bankruptcy (the Put Option). The 2013 Convertible Notes and accrued interest automatically convert (the Conversion Feature) into subsequently issued equity securities if the Company issues equity securities in a transaction or series of related transactions that result in aggregate gross proceeds to the Company of at least $7,500,000 (a Qualified Financing). In accordance with the terms of the 2013 Convertible Notes, and effected by the written consent of the holders of a majority of the outstanding principal of such notes, on June 2, 2014, the principal amount of the 2013 Convertible Notes of $3,846,000 and all accrued interest of $313,205 converted into 5,332,348 shares of Series D Preferred at $0.78 per share.

The Company also granted to the holders of the 2013 Convertible Notes warrants to purchase shares of the same class and series of equity securities issued in the Qualified Financing (the 2013 Warrants) for an exercise price equal to the per share price paid by the purchasers of such equity securities in the Qualified Financing. The fair value of the 2013 Warrants at issuance was recorded as a debt discount. The Company determined that the 2013 Warrants should be recorded as a liability and stated at fair value at each reporting period (Notes 5 and 8).

The Company accounted for the embedded Conversion Feature and Put Option in the 2013 Convertible Notes under the derivative accounting guidance. Under this guidance, a company may be required to bifurcate an embedded feature from its host instrument and account for the embedded derivative as a free-standing derivative financial instrument that is measured at fair value at issuance and adjusted to its current fair value at each period. The Company determined that the Conversion Feature and Put Option should be bifurcated from the 2013 Convertible Notes and recorded at fair value. The fair value of the embedded Conversion Feature and Put Option was $1,360,000 and $0 at December 31, 2013 and September 30, 2014, respectively (Note 8). The fair value adjustment related to these features was $540,000 for the nine months ended September 30, 2014. Upon the conversion of the 2013 Convertible Notes, the embedded Conversion Feature and Put Option was marked to fair value and the balance of $1,900,000 was recorded as a gain on extinguishment of debt.

KEMPHARM, INC.

NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS (CONTINUED)

4. Commitments and Contingencies

Legal Proceedings

In 2014, a former financial advisor and current warrant holder of the Company filed a request with the Iowa District Court, in response to a declaratory judgment action initiated by the Company during 2013, to declare valid a purported right of first refusal to serve as the Company's exclusive financial advisor for specified strategic transactions and to receive fees for the specified strategic transactions irrespective of whether any such specified transaction occurred during or after the term of the financial advisor's service agreement. A trial date for this matter has been scheduled for August 2015 and the Company is unable to predict the timing or outcome of this litigation as of the date of this report. However, if it is determined that such purported right of first refusal and right to receive a cash fee related to any such specified strategic transactions are valid, then the Company could be required to pay the counterparty a portion of the consideration or proceeds received in any such specified strategic transaction, including the Company's IPO and future capital raising transactions.

5. Redeemable Convertible Preferred Stock and Warrants

Authorized, Issued, and Outstanding Redeemable Convertible Preferred Stock

Effective May 30, 2014, the Company amended its Certificate of Incorporation to increase the number of its authorized shares of preferred stock to 109,483,000 shares with a par value of $0.0001 per share.

The following table summarizes authorized, issued and outstanding Series A redeemable convertible preferred stock (Series A Preferred), Series B redeemable convertible preferred stock (Series B Preferred), Series C redeemable convertible preferred stock (Series C Preferred) and Series D Preferred as of September 30, 2014:

	Authorized	Outstanding	Issue Price	Liquidation Preference
Series A Preferred	9,705,000	9,704,215	$0.40	$ 3,881,686
Series B Preferred	6,220,000	6,220,000	$0.62	3,856,400
Series C Preferred	18,558,000	18,557,408	$0.78	14,474,778
Series D Preferred	75,000,000	7,255,425	$0.78	5,659,232
Total	109,483,000	41,737,048		$27,872,096

Preferred Stock Activity

The following table summarizes redeemable convertible preferred stock activity for the nine months ended September 30, 2014:

	Shares of				
	Series A Preferred	Series B Preferred	Series C Preferred	Series D Preferred	Total
Balance, January 1, 2014	9,704,215	6,220,000	18,557,408	–	34,481,623
Shares issued upon conversion of 2013 Convertible Notes	–	–	–	5,332,348	5,332,348
Shares issued for financing fee to Deerfield	–	–	–	1,923,077	1,923,077
Balance, September 30, 2014	9,704,215	6,220,000	18,557,408	7,255,425	41,737,048

KEMPHARM, INC.

NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS (CONTINUED)

Series D Redeemable Convertible Preferred Stock

During the nine months ended September 30, 2014, the Company issued 7,255,425 shares of Series D Preferred at $0.78 per share in connection with the Qualified Financing (Note 3). On June 2, 2014, the Company issued 5,332,348 shares of Series D Preferred upon conversion of the 2013 Convertible Notes and 1,923,077 shares of Series D Preferred to Deerfield as a financing fee.

Significant terms of the redeemable convertible preferred stock (together the Preferred Stock) are as follows:

Conversion Rights

Each share of Series A Preferred, Series B Preferred, Series C Preferred, and Series D Preferred is convertible, at the option of the holder, at any time after the date of issuance into the number of shares of common stock determined by dividing the original issue price by the conversion price upon a qualifying liquidation or capital event. The initial conversion and issue price is as follows with respect to any share of:

- Series A Preferred, $0.40 per share;
- Series B Preferred, $0.62 per share;
- Series C Preferred, $0.78 per share; and
- Series D Preferred, $0.78 per share.

The initial conversion price of each share will be adjusted for stock splits, combinations, recapitalizations, reclassifications and similar events. The conversion price is subject to adjustment if the Company issues additional shares of common stock at a price less than the Series A Preferred, Series B Preferred, Series C Preferred and/or Series D Preferred conversion prices in effect at the time of such issuance.

All outstanding shares of Preferred Stock automatically convert into shares of common stock upon the closing of a Qualified Public Offering; an underwritten public offering of common stock that is not a Qualified Public Offering but that is approved by Deerfield and the board of directors (the Board); or the date specified by written consent or agreement of the holders of a majority of the then-outstanding shares of Preferred Stock, voting together as a separate class on an as-converted to common stock basis. A Qualified Public Offering is defined as the closing of the sale of shares of common stock to the public at a price of at least $1.25 per share in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, with at least $25,000,000 of gross proceeds to the Company and a listing of the common stock on the NASDAQ Stock Market or the New York Stock Exchange.

Dividend Rights

With respect to the Company's payment of dividends or distributions, if any, the Series D Preferred ranks senior in priority to the Series C Preferred, which ranks senior in priority to the Series B Preferred, which ranks senior in priority to the Series A Preferred, which ranks senior in priority to all shares of common stock. Such dividends are payable only when, and if, declared by the Board and are noncumulative.

KEMPHARM, INC.

NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS (CONTINUED)

Voting Rights

The Company's Series A Preferred, Series B Preferred, and Series C Preferred are non-voting except to the extent voting rights are required by General Corporate Law of the State of Delaware. Each holder of Series D Preferred is entitled to cast the number of votes equal to the number of whole shares of common stock into which the shares of Series D Preferred held by such holder are convertible. Holders of Series D Preferred vote together with the holders of common stock as a single class.

Liquidation

Upon an Event of Liquidation, subject to the prior payment of any and all amounts required under the Deerfield Convertible Notes, the Deerfield Warrant and the Term Note, the assets and funds of the Company legally available for distribution, if any, shall be distributed among the holders of common stock and Preferred Stock as follows:

- Before any distribution or payment is made to any holder of common stock, Series A Preferred, Series B Preferred, or Series C Preferred, the holders of shares of Series D Preferred are entitled to be paid an amount equal to the liquidation preference amount with respect to each share of Series D Preferred. If the holders of Series D Preferred have been paid in full the liquidation preference amounts to which they are entitled, then, before any distribution or payment is made to any holder of common stock, Series A Preferred, or Series B Preferred, the holders of shares of Series C Preferred are entitled to be paid an amount equal to the liquidation preference amount with respect to each share of Series C Preferred. If the holders of Series D Preferred and the Series C Preferred have been paid in full the liquidation preference amounts to which they are entitled, then, before any distribution or payment is made to any holder of common stock or Series A Preferred, the holders of shares of Series B Preferred are entitled to be paid an amount equal to the liquidation preference amount with respect to each share of Series B Preferred. If the holders of Series D Preferred, the Series C Preferred, and the Series B Preferred have been paid in full the liquidation preference amounts to which they are entitled, then, before any distribution or payment is made to any holder of common stock, the holders of shares of Series A Preferred are entitled to be paid an amount equal to the liquidation preference amount with respect to each share of Series A Preferred.
- If, upon an Event of Liquidation, holders of the Preferred Stock have been paid in full the liquidation preference amounts to which they are entitled, the remaining assets and funds of the Company legally available for distribution, if any, will be distributed among the holders of the common stock and the Preferred Stock in proportion to the shares of common stock then held by them and the shares of common stock that they have the right to acquire upon conversion of the shares of Preferred Stock.

An Event of Liquidation means (i) any liquidation, dissolution or winding up of the Company, whether voluntary or involuntary or (ii) any Deemed Liquidation Event. A Deemed Liquidation Event means (i) any merger, consolidation or share exchange transaction in which the Company is a party and the Company issues shares of its capital stock pursuant to such merger or consolidation (except any such merger, consolidation or share exchange involving the Company in which the shares of capital stock of the Company outstanding immediately prior to such merger, consolidation or share exchange continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of the surviving or resulting corporation) or (ii) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Company of all or substantially all the assets or capital stock of the Company.

KEMPHARM, INC.

NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS (CONTINUED)

As a result of the existence of the deemed liquidation feature, the Company determined that all series of Preferred Stock are redeemable upon the occurrence of a deemed liquidation event. They are carried at initial fair value at each reporting period and excluded from stockholders' deficit in the accompanying balance sheets. If the occurrence of a deemed liquidation event becomes probable, all series of the Preferred Stock will be adjusted to liquidation value during that period.

Series D Preferred Protective Provisions

The Company cannot take any of the following actions without the written consent or affirmative vote of the holders of at least a majority of the issued and outstanding shares of Series D Preferred, which majority must include Deerfield:

- liquidate, dissolve or wind up the business of the Company, or effect any merger or consolidation or any other Deemed Liquidation Event;
- amend, alter or repeal any provision of the Certificate of Incorporation or Bylaws in a manner that adversely affects the holders of Series D Preferred;
- create or issue shares of any additional class of capital stock unless the same ranks junior to the Series D Preferred with respect to distributions upon an Event of Liquidation, the payment of dividends, and rights of redemption;
- increase the authorized number of shares of Series D Preferred or increase the authorized number of shares of any other class of capital stock unless the same ranks junior to the Series D Preferred with respect to distributions upon an Event of Liquidation, the payment of dividends, and rights of redemption;
- issue any shares of Series D Preferred other than as contemplated by the Deerfield Facility Agreement, the Deerfield Convertible Notes or the Deerfield Warrant;
- reclassify, alter or amend any existing security of the Company (i) that is pari passu with the Series D Preferred with respect to distributions payable upon an Event of Liquidation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Series D Preferred with respect to any such right, preference, or privilege or (ii) that is junior to the Series D Preferred with respect to distributions payable upon an Event of Liquidation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Series D Preferred with respect to any such right, preference or privilege;
- declare, pay, or make any dividends or other distributions to any holders of common stock, Series A Preferred, Series B Preferred, Series C Preferred, or any other capital stock that is junior to the Series D Preferred with respect to the payment of dividends or distributions, or to any holders of shares of a class of capital stock issued following the Series D Preferred original issue date that is pari passu to the Series D Preferred with respect to the payment of dividends;
- purchase, redeem, or otherwise acquire any shares of common stock, Series A Preferred, Series B Preferred, Series C Preferred, or any other capital stock that is junior to the Series D Preferred, or to any holders of shares of a class of capital stock issued following the Series D Preferred original issue date that is pari passu to the Series D Preferred; *provided*, *however*, that the approval by the Series D Preferred and Deerfield is not required for: (1) shares repurchased from former employees, consultants, or directors of the Company in accordance with restricted stock purchase agreements with such employees, consultants, or directors entered into with Board approval, (2) the repurchase of up to $100,000 of additional shares, in

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NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS (CONTINUED)

the aggregate, of such junior or pari passu classes or series of capital stock, and (3) redemptions of the Series D Preferred as expressly authorized in the Certificate of Incorporation; or

- increase or decrease the authorized number of directors constituting the Board.

Warrants

As of September 30, 2014, outstanding warrants to purchase the Company's Series D Preferred were as follows:

Issuance Date	Number of Underlying Shares	Exercise Price
2013	1,079,453	$ 0.78
2014	14,423,076	$ 0.78
	15,502,529	

During 2013, the Company issued $3,846,000 of Convertible Notes and the 2013 Warrants to purchase 1,079,453 shares of equity securities in a future Qualified Financing. The 2013 Warrants allow the holders to purchase shares of the same class and series of equity securities issued in the Qualified Financing for an exercise price equal to the per share price paid by the purchasers of such equity securities in the Qualified Financing. When the Company entered into the Deerfield Facility Agreement, the 2013 Warrants became warrants to purchase 1,079,453 shares of Series D Preferred. The 2013 Warrants, if unexercised, expire on the earlier of June 2, 2019 or upon a liquidation event.

On June 2, 2014, pursuant to the terms of the Deerfield Facility Agreement, the Company issued the Deerfield Warrant to purchase 14,423,076 shares of Series D Preferred. The Company recorded the fair value of the Deerfield Warrant as a debt discount and a warrant liability. The Deerfield Warrant, if unexercised, expires on the earlier of June 2, 2024 or upon a liquidation event. The Company is amortizing the debt discount to interest expense over the term of the Term Notes and the Deerfield Convertible Notes.

The Company determined that the 2013 Warrants and Deerfield Warrant should be recorded as a liability and stated at fair value at each reporting period. Changes to the fair value of the warrant liability are recorded through the statements of operations as a fair value adjustment (Note 8).

6. Common Stock and Warrants

Authorized, Issued, and Outstanding Common Shares

Effective May 30, 2014, the Company amended its Certificate of Incorporation to increase the number of its authorized shares of common stock to 140,000,000 shares and change the common stock from no par value to $0.0001 per share. Of the authorized shares, 17,857,849 shares were issued and outstanding at December 31, 2013 and September 30, 2014.

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NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS (CONTINUED)

At September 30, 2014, the Company had reserved authorized shares of common stock for future issuance as follows:

	Shares of Common Stock
Conversion of Series A Preferred	9,704,215
Conversion of Series B Preferred	6,220,000
Conversion of Series C Preferred	18,557,408
Conversion of Series D Preferred	7,255,425
Conversion of Deerfield Convertible Notes	13,233,885
Outstanding awards under Incentive Stock Plan	2,964,000
Outstanding common stock warrants	4,470,777
Outstanding Series D Preferred warrants	15,502,529
Possible future issuances under Incentive Stock Plan	2,742,667
Total common shares reserved for future issuance	80,650,906

The Company calculates the fair value of common stock warrants using a Monte Carlo simulation. There were no warrants exercised during the nine months ended September 30, 2013 and 2014. From 2008 through 2012, the Company issued warrants to purchase 4,470,777 shares of common stock in its private placement offerings of Series A Preferred, Series B Preferred and Series C Preferred (Underwriter Warrants) and for leasing laboratory space. The Company accounted for the Underwriter Warrants as a derivative liability, which is adjusted to fair value at each reporting period.

7. Stock-Based Compensation

The Company has a share-based compensation plan (the Incentive Stock Plan or the Plan) that is designed to allow the Company to attract and retain highly qualified employees and directors. In July 2014, the Company's Incentive Stock Plan was revised to increase the maximum number of shares issuable under the Plan from 5,000,000 to 6,000,000.

Stock-based compensation expense for stock awards under the Incentive Stock Plan is as follows:

	Nine Months Ended September 30,	
	2013	2014
Research and development	$ 22,255	$ 36,981
General and administrative	86,846	132,184
	$109,101	$169,165

No stock options were exercised during the nine months ended September 30, 2013 or 2014.

The Company did not recognize any stock-based compensation expense related to performance-based incentive awards during the nine months ended September 30, 2013 as the strategic initiatives set forth in the grants were not achieved or probable of achievement. During the nine months ended September 30, 2014, the Company recognized $62,806 of stock-based compensation expense in connection with the grant of 100,000 fully vested stock options as a result of the Company entering into the Deerfield Facility Agreement.

KEMPHARM, INC.

NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS (CONTINUED)

8. Fair Value of Financial Instruments

The carrying amounts of certain financial instruments, including cash and cash equivalents and accounts payable, approximate their respective fair values due to the short-term nature of such instruments. The carrying amount of the line of credit approximates fair value due to the variable interest rate in that instrument.

The fair value of the Company's 2013 Convertible Notes was $3,650,000 at December 31, 2013. The 2013 Convertible Notes fall within Level 3 of the fair value hierarchy as their value is based on the credit worthiness of the Company, which is an unobservable input. The 2013 Convertible Notes were converted to Series D Preferred on June 2, 2014.

The fair value of the Deerfield Convertible Notes and the Term Notes was $13,130,000 and $5,566,000 at September 30, 2014, respectively. The Term Notes and Deerfield Convertible Notes fall within Level 3 of the fair value hierarchy as their value is based on the credit worthiness of the Company, which is an unobservable input.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The Company evaluates its financial assets and liabilities subject to fair value measurements on a recurring basis to determine the appropriate level in which to classify them for each reporting period. This determination requires significant judgments to be made. The following table summarizes the conclusions reached regarding fair value measurements as of December 31, 2013 and September 30, 2014:

	Balance at December 31, 2013	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Underwriter Warrant liability	$1,053,260	$ –	$ –	$1,053,260
Preferred stock warrant liability	400,000	–	–	400,000
Conversion Feature and Put Option	1,360,000	–	–	1,360,000
	$2,813,260	$ –	$ –	$2,813,260

	Balance at September 30, 2014	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Underwriter Warrant liability	$ 2,134,802	$ –	$ –	$ 2,134,802
Preferred stock warrant liability	10,480,000	–	–	10,480,000
Embedded Deerfield Put Option	130,000	–	–	130,000
	$12,744,802	$ –	$ –	$12,744,802

The Company's Underwriter Warrant liability, preferred stock warrant liability, the Conversion Feature and Put Option on the 2013 Convertible Notes, and the embedded Deerfield Put Option on the Deerfield Warrant are measured at fair value on a recurring basis. As of December 31, 2013, the Underwriter Warrant liability, the preferred stock warrant liability and the Conversion Feature and Put Option are reported on the balance sheet in derivative and warrant liability. As of September 30, 2014, the Underwriter Warrant liability, the preferred stock warrant liability and the embedded Deerfield Put

KEMPHARM, INC.

NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS (CONTINUED)

Option are reported on the balance sheet in derivative and warrant liability. The Company used a Monte Carlo simulation to value the Underwriter Warrant liability and the preferred stock warrant liability at December 31, 2013 and September 30, 2014. The Company used a Monte Carlo simulation to value the Conversion Feature and Put Option at December 31, 2013 and the embedded Deerfield Put Option at September 30, 2014. Significant unobservable inputs used in measuring the fair value of financial instruments included the Company's estimated enterprise value, an estimate of the timing of a liquidity event, a present value discount rate, a risk-free rate of interest and an estimate of the Company's stock volatility using the volatilities of guideline peer companies. Changes in the fair value of the Underwriter Warrant liability, the preferred stock warrant liability, the Conversion Feature and Put Option, and the embedded Deerfield Put Option are reflected in the statements of operations as a fair value adjustment.

A reconciliation of the beginning and ending balances for the derivative and warrant liability measured at fair value on a recurring basis using significant unobservable inputs (Level 3) is as follows:

	Nine Months Ended September 30, 2013	Nine Months Ended September 30, 2014
Balance at January 1	$ 2,390,608	$ 2,813,260
Issuance of 2013 Warrants	248,857	–
Issuance of 2013 Convertible Notes	698,010	–
Issuance of Deerfield Convertible Notes and Term Notes	–	7,610,000
Embedded Deerfield Put Option	–	220,000
Conversion of 2013 Convertible Notes	–	(1,900,000)
Adjustment to fair value	(1,091,012)	4,001,542
Balance at September 30	$ 2,246,463	$12,744,802

9. Income Taxes

As part of the process of preparing the unaudited financial statements, the Company is required to estimate its income taxes in each of the jurisdictions in which it operates. This process involves determining the annual effective tax rate, income tax benefit and deferred income tax benefit related to temporary differences resulting from differing treatment of items, such as the timing of depreciation and deferred rent liabilities, for tax and accounting purposes. These differences result in deferred tax assets and liabilities. The Company then must assess the likelihood that the deferred tax assets will be recovered through the generation of future taxable income.

The Company realized an income tax benefit of $14,550 and $48,652 for the nine months ended September 30, 2013 and 2014, respectively, due to a refundable state research tax credit. The Company anticipates book losses for the year ended December 31, 2014 and has significant net operating loss carryforwards available for application should permanent and temporary differences from book income yield taxable income. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. Based upon the level of historical losses and projections for future taxable income over the periods in which the deferred tax assets are deductible, management believes it is more likely than not that the Company will not realize the benefits of these deductible differences in the future. Therefore, the Company has recorded a full valuation allowance on its net deferred tax asset.

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NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS (CONTINUED)

10. Net Loss Per Share

Under the two-class method, for periods with net income, basic net income per common share is computed by dividing the net income attributable to common stockholders by the weighted average number of shares of common stock outstanding during the period. Net income attributable to common stockholders is computed by subtracting from net income the portion of current period earnings that participating securities would have been entitled to receive pursuant to their dividend rights had all of the period's earnings been distributed. No such adjustment to earnings is made during periods with a net loss as the holders of the participating securities have no obligation to fund losses. Diluted net loss per common share is computed under the two-class method by using the weighted average number of shares of common stock outstanding plus, for periods with net income attributable to common stockholders, the potential dilutive effects of stock options and warrants. In addition, the Company analyzes the potential dilutive effect of the outstanding participating securities under the if-converted method when calculating diluted earnings per share in which it is assumed that the outstanding participating securities convert into common stock at the beginning of the period. The Company reports the more dilutive of the approaches (two-class or if-converted) as its diluted net income per share during the period. Due to the existence of net losses for the nine months ended September 30, 2013 and 2014, basic and diluted loss per share were the same, as the effect of potentially dilutive securities would have been anti-dilutive.

The following securities, presented on a common stock equivalent basis, have been excluded from the calculation of weighted average common shares outstanding because their effect is anti-dilutive:

	Nine Months Ended September 30,	
	2013	2014
Redeemable convertible preferred stock:		
Series A	9,704,215	9,704,215
Series B	6,220,000	6,220,000
Series C	18,557,408	18,557,408
Series D	–	7,255,425
Warrants to purchase common stock	4,470,777	4,470,777
Warrants to purchase Series D Preferred	579,915	15,502,259
Awards under Incentive Stock Plan	2,227,000	2,964,000
2013 Convertible Notes	3,037,998	–
Deerfield Convertible Notes	–	13,233,885

KEMPHARM, INC.

NOTES TO UNAUDITED CONDENSED FINANCIAL STATEMENTS (CONTINUED)

Pro Forma Net Loss Per Share

The denominator used in computing pro forma net loss per share for the nine months ended September 30, 2014 have been adjusted to assume the conversion of the principal amount and accrued interest of the 2013 Convertible Notes at the beginning of the period or at the time the interest is accrued and the conversion of all outstanding shares of redeemable convertible preferred stock into common stock as of the beginning of the period or at the time of issuance, if later. The calculation of pro forma net loss per share is as follows:

	September 30, 2014
Numerator:	
Historical net loss	$(12,615,189)(a)
Pro forma numerator for basic and diluted loss per share	$(12,615,189)
Denominator:	
Historical denominator for basic and diluted net loss per share—weighted average shares	17,857,849 (b)
Plus: conversion of redeemable convertible preferred stock to common stock	37,697,397 (c)
Plus: conversion of 2013 Convertible Notes	2,810,007 (d)
Pro forma denominator for basic and diluted net loss per share	58,365,253
Pro forma basic and diluted loss per share	$ (0.22)

(a) Represents actual net loss.
(b) Represents actual weighted average common shares outstanding—basic.
(c) Represents the number of shares of common stock that would have been outstanding had all outstanding shares of the Company's redeemable convertible preferred stock converted into shares of common stock as of January 1, 2014 or the issuance dates of the redeemable convertible preferred stock, if later, computed on a weighted average basis.
(d) Represents the number of shares of common stock that would have been outstanding had the principal amount and accrued interest of the Convertible Notes converted into shares of common stock at the beginning of the period or at the time the interest is accrued, computed on a weighted average basis.

11. Subsequent Events

The Company evaluated subsequent events through December 19, 2014, the date on which the September 30, 2014 financial statements were available to be issued. There are no significant events that require disclosure in these financial statements.

Shares

Common Stock

PROSPECTUS

Cowen and Company **RBC Capital Markets**

Canaccord Genuity **Oppenheimer & Co.**

, 2015

Until , 2015, all dealers that effect transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This requirement is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth all costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the sale of the common stock being registered. All amounts shown are estimates except for the SEC registration fee, the Financial Industry Regulatory Authority, or FINRA, filing fee and The NASDAQ Global Market initial listing fee.

	Amount to be Paid
SEC registration fee	$ *
FINRA filing fee	*
NASDAQ Global Market initial listing fee	*
Blue sky fees and expenses	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees and expenses	*
Miscellaneous fees and expenses	*
Total	$ *

* To be filed by amendment.

Item 14. Indemnification of Directors and Officers.

We are incorporated under the laws of the State of Delaware. Section 102 of the Delaware General Corporation Law permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit.

Section 145 of the Delaware General Corporation Law provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification will be made with respect to any claim, issue or matter as to which such person will have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court may deem proper.

As permitted by the Delaware General Corporation Law, our amended and restated certificate of incorporation and bylaws to be in effect upon the closing of this offering will provide that: (i) we are required to indemnify our directors to the fullest extent permitted by the Delaware General Corporation

Law; (ii) we may, in our discretion, indemnify our officers, employees and agents as set forth in the Delaware General Corporation Law; (iii) we are required, upon satisfaction of certain conditions, to advance all expenses incurred by our directors in connection with certain legal proceedings; (iv) the rights conferred in the bylaws are not exclusive; and (v) we are authorized to enter into indemnification agreements with our directors, officers, employees and agents.

We have entered into agreements with some of our directors and executive officers that require us to indemnify them against expenses, judgments, fines, settlements and other amounts that any such person becomes legally obligated to pay (including with respect to a derivative action) in connection with any proceeding, whether actual or threatened, to which such person may be made a party by reason of the fact that such person is or was a director or officer of us or any of our affiliates, provided such person acted in good faith and in a manner such person reasonably believed to be in, or not opposed to, our best interests. The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder. At present, no litigation or proceeding is pending that involves any of our directors or officers regarding which indemnification is sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

We maintain a directors' and officers' liability insurance policy. The policy insures directors and officers against unindemnified losses arising from certain wrongful acts in their capacities as directors and officers and reimburses us for those losses for which we have lawfully indemnified the directors and officers. The policy contains various exclusions.

In addition, the underwriting agreement filed as Exhibit 1.1 to this Registration Statement provides for indemnification by the underwriters of us and our officers and directors for certain liabilities arising under the Securities Act, or otherwise. Our investors' rights agreement with certain investors also provides for cross-indemnification in connection with the registration of our common stock on behalf of such investors.

Item 15. Recent Sales of Unregistered Securities.

Issuances of Capital Stock, Promissory Notes and Warrants

The following list sets forth information regarding all unregistered securities sold by us since January 1, 2011 through the date of the prospectus that forms a part of this registration statement.

1) From September 2010 to March 2012, we sold 18,557,408 shares of Series C redeemable convertible preferred stock in a private placement, or the Series C Private Placement, to accredited investors at a price per share of $0.78 for an aggregate purchase price of $14,474,778.
2) From December 2010 to March 2012, we issued warrants exercisable for an aggregate of 2,787,777 shares of our common stock at an exercise price of $0.78 per share to DFN Partners LLC, or DFN, and certain of its affiliates, as compensation for DFN acting as our placement agent in the Series C Private Placement. These warrants are exercisable until their expiration between November 2017 and March 2019.
3) In January 2012, we issued 564,516 shares of our common stock to Johnson Matthey, Inc., or JMI, as consideration for certain developmental and manufacturing services provided to us by JMI pursuant to the terms of a certain Material Supply Agreement, dated as of November 2, 2009, between us and JMI.
4) From April 2013 to October 2013, we issued 10% convertible promissory notes in the aggregate principal amount of $3,846,000 in a private placement, or the 2013 Note Financing,

to accredited investors. In June 2014, these convertible notes converted into an aggregate of 5,332,348 shares of our Series D redeemable convertible preferred stock in accordance the terms of the notes and as a result of our consummation of a debt facility with Deerfield Private Design Fund III, L.P., or Deerfield.

5) From April 2013 to October 2013, we issued warrants exercisable for shares of our capital stock to certain participants in the 2013 Note Financing in consideration for the principal amount paid by each such participant. Upon conversion of the notes issued in the 2013 Note Financing into shares of our Series D redeemable convertible preferred stock, these warrants became exercisable for an aggregate of 1,079,453 shares of our Series D redeemable convertible preferred stock at an exercise price of $0.78 per share. These warrants are exercisable until their expiration between June 2018 and October 2018. Upon consummation of this offering, these warrants will become exercisable for an aggregate of 1,079,453 shares of our common stock at an exercise price of $0.78 per share.

6) In June 2014, we issued 1,923,077 shares of our Series D redeemable convertible preferred stock to Deerfield as consideration for services to be performed by Deerfield, including the issuance of credit to us, under that certain Facility Agreement between us and Deerfield dated as June 2, 2014, or the Deerfield facility.

7) In June 2014, we issued a warrant exercisable for 14,423,076 shares of our Series D redeemable convertible preferred stock at an exercise price of $0.78 per share as consideration for Deerfield's services under the Deerfield facility. According to the terms of this warrant, in no event may Deerfield exercise the initial Deerfield warrant if such exercise would result in Deerfield beneficially owning more than 9.985% of the then issued and outstanding shares of our common stock. This exercise limitation may not be waived and any purported exercise that is inconsistent with this exercise limitation is null and void. This exercise limitation will not apply to any exercise made immediately prior to a change of control transaction. Without regard to this exercise limitation, upon consummation of this offering, this warrant will become exercisable for 14,423,076 shares of our common stock at an exercise price of $0.78 per share. This warrant is exercisable until its expiration in June 2024.

8) In June 2014, we issued a 9.75% senior secured convertible note to Deerfield as consideration for Deerfield's services under the Deerfield facility. The outstanding principal, and any unpaid accrued interest thereon, is convertible at Deerfield's option into an aggregate of 13,445,906 shares of our Series D redeemable convertible preferred stock, assuming a conversion date of November 29, 2014, at a conversion price of $0.78 per share. At our option, all outstanding principal, and any accrued interest thereon, of this note will convert into shares of our capital stock upon the occurrence prior to June 30, 2016 of either (i) the FDA's approval of an NDA for KP201 for the treatment of acute pain without requiring the performance of an efficacy study or (ii) the FDA's acceptance of an NDA for KP201 for review and our consummation of an initial public offering of our common stock at price of at least $1.25 per share with at least $25.0 million in gross proceeds to us. According to the terms of the Deerfield Note, in no event may Deerfield convert the Deerfield Note to the extent such conversion would result in Deerfield beneficially owning more than 9.985% of the then issued and outstanding shares of our common stock. This conversion limitation may not be waived and any purported conversion that is inconsistent with this conversion limitation will be null and void. This conversion limitation will not apply to any conversion made immediately prior to a change of control transaction. Without regard to this conversion limitation, upon the consummation of this offering, the Deerfield Note will become convertible into 13,445,906 shares of our common stock, assuming a conversion date of November 29, 2014, at a conversion price of $0.78 per share.

The offers, sales and issuances of the securities described in the paragraphs above were exempt from registration under Section 4(a)(2) of the Securities Act and Regulation D promulgated under the Securities Act. The recipients represented to us that they acquired the securities for investment only

and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in these transactions. The recipients also represented to us that they were accredited investors as defined in Rule 501 promulgated under the Securities Act.

Stock Option Grants

From January 1, 2011 through the date of the prospectus that is a part of this registration statement, we have granted options under our 2007 Plan to purchase an aggregate of 2,899,000 shares of our common stock to employees, consultants and directors, having exercise prices ranging from $0.62 to $0.94 per share. We have issued no shares of our common stock upon the exercise of these stock options.

The offers, sales and issuances of the securities described in the foregoing paragraph were exempt from registration under Rule 701 promulgated under the Securities Act in that the transactions were under compensatory benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of such securities were our employees, directors or consultants and received the securities under our 2007 Plan. Appropriate legends were affixed to the securities issued in these transactions.

Item 16. Exhibits and Financial Statement Schedules.

The exhibits to the registration statement are listed in the Exhibit Index attached hereto and are incorporated by reference herein.

Item 17. Undertakings.

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Coralville, State of Iowa, on the day of , 2015.

KEMPHARM, INC.

By: _____
Travis C. Mickle, Ph.D.
President and Chief Executive Officer

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Travis C. Mickle, Ph.D., Gordon K. Johnson and Brent B. Siler, and each of them, his or her true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments (including post-effective amendments) to this registration statement together with all schedules and exhibits thereto and any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment or any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and (iv) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he or she might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
Travis C. Mickle, Ph.D.	President, Chief Executive Officer and Director *(Principal Executive Officer)*	, 2015
Gordon K. Johnson	Chief Operating Officer and Chief Financial Officer *(Principal Financial Officer and Principal Accounting Officer)*	, 2015
Sven Guenther, Ph.D.	Executive Vice President Research and Development and Director	, 2015
Christal M.M. Mickle	Vice President Operations and Product Development and Director	, 2015
Danny L. Thompson	Director	, 2015

Signature	Title	Date
Matthew R. Plooster	Director	, 2015
Richard W. Pascoe	Director	, 2015
Joseph B. Saluri	Director	, 2015
Jonathan S. Leff	Director	, 2015

EXHIBIT INDEX

Exhibit Number	Description of Document
1.1†	Form of Underwriting Agreement.
2.1*	Asset Purchase Agreement, by and between Shire LLC and Travis C. Mickle, Ph.D. and the Registrant, dated as of March 21, 2012.
3.1†	Amended and Restated Certificate of Incorporation, as currently in effect.
3.2†	Form of Certificate of Amendment of Certificate of Incorporation to be filed prior to the completion of this offering.
3.3	Form of Amended and Restated Certificate of Incorporation to be effective upon completion of this offering.
3.4	Amended and Restated Bylaws, as amended to date and currently in effect.
3.5	Form of Amended and Restated Bylaws to be effective upon completion of this offering.
4.1	Reference is made to exhibits 3.1 through 3.5.
4.2†	Specimen stock certificate evidencing shares of Common Stock.
5.1†	Opinion of Cooley LLP as to legality.
10.1*	Material Supply Agreement, by and between the Registrant and Johnson Matthey Inc., dated as of November 2, 2009.
10.2	Facility Agreement, by and between the Registrant and Deerfield Private Design Fund III, L.P., dated as of June 2, 2014.
10.3†	Amended and Restated Investors' Rights Agreement, 2014, by and among the Registrant and certain of its stockholders.
10.4	Senior Secured Convertible Note issued to Deerfield Private Design Fund III, L.P., dated as of June 2, 2014.
10.5	Warrant to Purchase Shares of Series D Preferred Stock issued to Deerfield Private Design Fund III, L.P., dated as of June 2, 2014.
10.6	Warrant to Purchase Shares of Common Stock issued to the Virginia Tech Foundation, Inc., dated as of September 8, 2009.
10.7	Form of Stock Purchase Warrant to purchase shares of Series D Convertible Preferred Stock issued in bridge financing, along with a schedule of warrantholders.
10.8†	Form of Common Stock Purchase Warrants, along with a schedule of warrantholders.
10.9	Lease Agreement, by and between the Registrant and the Board of Regents, State of Iowa for the Use and Benefit of the University of Iowa, dated as of September 6, 2013.
10.10*	Agreement to Terminate CLA, by and between a third party and the Registrant, dated as of March 20, 2012.
10.11+	Incentive Stock Plan, as amended to date.
10.12+	Form of Incentive Stock Option Agreement under Incentive Stock Plan.
10.13+	Form of Nonqualified Stock Option Agreement under Incentive Stock Plan.
10.14+	Form of 2014 Equity Incentive Plan.

Exhibit Number	Description of Document
10.15+	Form of Stock Option Grant Notice and Stock Option Agreement under 2014 Equity Incentive Plan.
10.16+	Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Award Agreement under 2014 Equity Incentive Plan.
10.17+	Form of Indemnification Agreement with the Registrant's directors and executive officers.
10.18+	Employment Agreement by and between the Registrant and Gordon K. Johnson, dated as of July 10, 2013.
10.19+	Employment Agreement by and between the Registrant and Travis C. Mickle, Ph.D., dated as of May 30, 2014.
10.20+	Employment Agreement by and between the Registrant and Christal M.M. Mickle, dated as of May 30, 2014.
10.21†	Board of Directors Services Agreement by and between the Registrant and Richard W. Pascoe, dated as of January 1, 2014.
10.22†	Board of Directors Services Agreement by and between the Registrant and Joseph B. Saluri, dated as of January 1, 2014.
23.1†	Consent of Ernst & Young LLP, independent registered public accounting firm.
23.2†	Consent of Cooley LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on signature page).

† To be filed by amendment.
+ Indicates management contract or compensatory plan.
* Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment and have been separately filed with the Securities and Exchange Commission.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT 2.1

ASSET PURCHASE AGREEMENT

between

SHIRE LLC

and

TRAVIS C. MICKLE, PH.D., AND KEMPHARM, INC.

dated as of March 21, 2012

THIS ASSET PURCHASE AGREEMENT (this "Agreement") is hereby entered into as of March 21, 2012 (the "Execution Date") by and between, on the one hand, Shire LLC, a corporation organized and existing under the laws of Kentucky with its principal place of business in Florence, Kentucky ("Shire"), and, on the other hand, Travis C. Mickle, Ph.D. ("Travis Mickle") and KemPharm, Inc., a corporation organized and existing under the laws of Iowa with its principal place of business in North Liberty, Iowa, and its Affiliates (as defined in Article 1) ("KemPharm," and, collectively with Travis Mickle, the "KemPharm Parties"). Shire and the KemPharm Parties may each be referred to herein individually as a "Party," and collectively as the "Parties."

W I T N E S S E T H:

WHEREAS, the Parties have contemporaneously herewith entered into an agreement to settle the Pending Litigation (as defined in Article 1) (the "Settlement Agreement"); and

WHEREAS, the KemPharm parties possess certain assets and rights, and wish in connection with the Settlement Agreement to sell such assets and rights to Shire, and Shire wishes to so acquire those assets and rights, all upon the terms of this Agreement;

NOW, THEREFORE, in consideration of the foregoing premises and of the representations, warranties, covenants and agreements herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto, intending to be legally bound, agree as follows:

ARTICLE 1
DEFINITIONS

Whenever used in this Agreement, unless otherwise clearly indicated by the context, the terms defined below shall have the indicated meanings. Other terms may be defined elsewhere in the text of this Agreement and, unless otherwise indicated, shall have such meaning throughout this Agreement.

1.1 "Acquired Assets" shall have the meaning set forth in Section 2.1.

1.2. "Acquired Documents" shall have the meaning set forth in Section 2.1(a).

1.3. "Acquired Intellectual Property" shall have the meaning set forth in Section 2.1(d).

1.4. "Acquired Inventory" shall have the meaning set forth in Section 2.1(b).

1.5. "Acquired Know-How" shall have the meaning set forth in Section 2.1.

1.6. "Acquired Products" shall have the meaning set forth in Section 2.1(a).

1.7. "Affiliate" shall mean with respect to any Person, any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by, or is under common

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

control with such first Person, wherein the word "control" (including, with correlative meaning, the terms "controlled by" or "under common control with") means the possession, either directly or indirectly, of the power to direct, or cause the direction of, the management and policies of a Person, whether through the ownership of voting securities, the power to elect directors, trustees or officers, by contract or otherwise.

1.8. "Agreement" shall have the meaning set forth in the Preamble of this Agreement.

1.9. "Applicable Laws" shall mean all laws, statutes, regulations, rules, guidelines, ordinances or the like of any Governmental Authority having jurisdiction over, or applicable to, the Acquired Assets or a Party in connection with its obligations under this Agreement.

1.10. "Assignment Agreement" shall have the meaning set forth in Section 2.6(b).

1.11. "Assumed Liabilities" shall have the meaning set forth in Section 2.3.

1.12. "Business Day" shall mean any day other than a Saturday, a Sunday or a day in which banks in New York City, New York are authorized or obligated by law or executive order to not open or remain closed.

1.13. "Closing" shall have the meaning set forth in Section 2.6.

1.14. "Closing Date" shall mean the third (3rd) Business Day following the satisfaction or waiver in writing of the Conditions to Closing unless this Agreement is terminated before such date, or such other time as the Parties may mutually agree upon in writing.

1.15. "Conditions to Closing" shall have the meaning set forth in Section 2.8.

1.16. "Confidential Information" shall mean, with respect to a Party (such Party, the "Disclosing Party"), all non-public information of any kind whatsoever (including data, materials, compilations, formulae, models, patent disclosures, procedures, processes, projections, protocols, results of experimentation and testing, specifications, strategies, and techniques), and all tangible and intangible embodiments thereof of any kind whatsoever (including materials, samples, apparatus, compositions, documents, drawings, machinery, patent applications, records and reports), which are disclosed by the Disclosing Party to the other Party (such other Party, the "Receiving Party"), including any and all copies, replication or embodiments thereof. The Confidential Information included within the Acquired Assets, as acquired by Shire pursuant to this Agreement (to the extent relating solely to the Acquired Assets and not also to any other business, asset or activity of the KemPharm Parties, including, with respect to the Excluded Assets), shall, subject to rights of the KemPharm parties pursuant to Section 2.2 of this Agreement with respect to comingled or intertwined documents and/or information, be the Confidential Information of Shire and Shire shall be deemed the Disclosing Party and the KemPharm Parties the Receiving Party of such Confidential Information regardless of the origination of such Confidential Information. Notwithstanding the foregoing, Confidential Information of a Disclosing Party shall not include information which the Receiving Party can establish through verifiable evidence (a) to have been publicly known prior to disclosure of such

information by the Disclosing Party to the Receiving Party, as evidenced by written records or similar proof (b) to have become publicly known, without fault on the part of the Receiving Party, subsequent to disclosure of such information by the Disclosing Party to the Receiving Party, as evidenced by written records or similar proof, (c) to have been received by the Receiving Party free of an obligation of confidentiality from a source rightfully having possession of and the right to disclose such information free of an obligation of confidentiality, as evidenced by written records or similar proof, (d) to have been otherwise known by the Receiving Party free of an obligation of confidentiality prior to disclosure of such information by the Disclosing Party to the Receiving Party, disclosures as evidenced by written records or similar proof, or (e) to have been independently developed by employees or agents of the Receiving Party without the use of Confidential Information of the Disclosing Party, as evidenced by written records or similar proof.

1.17. "Contract" shall mean any legally binding contract, agreement, lease, sublease, license, commitment, sale or purchase order, indenture, note, bond, loan, mortgage, deed of trust, instrument or other arrangement, whether written or oral, including, but not limited to, the [*] Agreement.

1.18. "Encumbrances" shall mean any security interest, pledge, mortgage, deed of trust, lien, charge, hypothecation, adverse claim, restriction on transfer (such as a right of first refusal or other similar rights), defect of title or other encumbrance of any nature whatsoever.

1.19. "Excluded Liabilities" shall have the meaning set forth in Section 2.4.

1.20. "Failure to Close" shall have the meaning set forth in Section 2.10.

1.21. "FDA Letter" shall mean the letter attached hereto as Exhibit B duly executed by an authorized officer of the applicable Party notifying the FDA of the transfer of the Regulatory Approvals to Shire.

1.22. "Governmental Authority" or "Governmental Authorities" shall mean any national, foreign, federal, state or local judicial, legislative, executive, administrative or regulatory body or authority, or its equivalent, including the FDA.

1.23. "Governmental Authorization" means any: (a) permit, license, certificate, franchise, concession, approval, consent, ratification, permission, clearance, confirmation, endorsement, waiver, certification, designation, rating, registration, qualification or authorization (including all pending applications therefore or renewals thereof) issued, granted, given or otherwise made available by or under the authority of any Governmental Authority or pursuant to any law; or (b) right under any Contract with any Governmental Authority.

1.24. "Intellectual Property" means all (a) Patents, including (i) any and all rights of application regarding any of the foregoing including with respect to extensions and the like, and (ii) rights to sue and recover damages or obtain injunctive relief for past and future infringement; and (b) Know-How.

1.25. "Know-How" shall mean any and all product specifications, processes, product designs, manufacturing information, engineering and other manuals and drawings, standard operating procedures, flow diagrams, chemical, pharmacological, toxicological, pharmaceutical, physical and analytical, safety, quality assurance, quality control and clinical data, technical information, data, research records and similar data and information.

1.26. "Losses" shall have the meaning set forth in Section 6.1.

1.27. "[*]" shall mean [*], a limited liability company with its headquarters located at [*];

1.28. "[*] Agreement" shall mean the Collaboration and License Agreement between [*] and KemPharm dated April 20, 2011;

1.29. "Ordinary Course of Business" shall mean any action that (a) is consistent in nature, scope and magnitude with the past practices of KemPharm and is taken in the ordinary course of the normal, day-to-day operations of KemPharm; (b) does not require authorization by the board of directors or shareholders of KemPharm and does not require any other separate or special authorization of any nature; and (c) is similar in nature, scope and magnitude to actions customarily taken, without any separate or special authorization, in the ordinary course of the normal, day-to-day operations of other companies in the same line of business as KemPharm.

1.30. "Party" or "Parties" shall have the meaning set forth in the Preamble of this Agreement.

1.31. "Patents" shall mean all patents, patent applications including provisional applications and statutory invention registrations, including reissues, divisions, continuations, continuations-in-part, and reexaminations, all inventions disclosed therein, all rights therein provided by international treaties and conventions, together with all applicable foreign counterpart patents and patent applications, and all rights to obtain patents and registrations thereto, as well as any extensions, supplementary protection certificates or the like applicable to any and all of the foregoing.

1.32. "Pending Litigation" shall mean *Shire LLC v. Travis C. Mickle Ph. D. et al.*, Case No. 7:10-cv-00434 (SGW) (PMS) (W.D. Va.).

1.33. "Person" shall mean an individual, a corporation, a limited liability company, a partnership, an association, a trust or other entity or organization, including a government or political subdivision or an agency or instrumentality thereof.

1.34. "Purchase Price" shall have the meaning set forth in Section 2.5.

1.35. "Regulatory Approval" means any licenses, registrations, authorizations and approvals (including approvals of INDs) related to the Acquired Products.

1.36. "Regulatory Files" or "Regulatory Filings" shall mean:

(a) the technical, medical and scientific licenses, permits, registrations, authorizations and approvals (including applications therefor, supplements and amendments, pre-and post-approvals, and labeling approvals) of any Governmental Authority necessary for the development (including the conduct of clinical trials), manufacture, distribution, marketing, promotion, offer for sale, import, export or sale of a drug product or a drug substance;

(b) all technical, scientific, chemical, biological, pharmacological, and toxicological data as well as all clinical and preclinical reports (together with clinical data sets associated with such reports), and all validation documents and data; and

(c) all correspondence to or from Governmental Authorities.

1.37. "Settlement Agreement" shall have the meaning set forth in the Preamble of this Agreement.

1.38. "Third Party" shall mean any entity other than Shire, Travis Mickle, KemPharm, or their respective Affiliates.

ARTICLE 2
PURCHASE AND SALE; CLOSING

2.1. Purchase and Sale. Acquired Assets. KemPharm agrees that it will sell, transfer, convey and assign to Shire at the Closing all right, title, and interest, free of any Encumbrances, to the following assets of KemPharm (the "Acquired Assets"):

(a) KP106 or any other amphetamine amino acid (including, but not limited to, standard, nonstandard, natural, unnatural and synthetic amino acid) conjugate products (the "Acquired Products"), including all tangible documents, in electronic or written form, embodying the Acquired Know-How (defined below), formal reports, Regulatory Filing and Regulatory Approvals, clinical studies related thereto, including, but not limited to, primary source data (e.g., lab notebooks, instrument output, and animal observations) (the "Acquired Documents");

(b) Any inventory of Acquired Products (the "Acquired Inventory");

(c) Shire agrees that the Acquired Assets shall not include non-amino acid conjugates, products, or prodrugs and non-amphetamine (including, but not limited to, standard, nonstandard, natural, unnatural and synthetic amino acid) conjugates, products or prodrugs, including, but not limited to, KemPharm's [*] and any and all associated KemPharm Intellectual Property, including, but not limited to, Patents, describing or claiming non-amino acid amphetamine conjugates or prodrugs, non-amphetamine conjugates or prodrugs, including, without limitation, non-amino acid conjugates or prodrugs indicated to remain in KemPharm's ownership in Schedule 2.1(c), or future developments not related to amphetamine amino acid conjugates; and

(d) All Intellectual Property (the "Acquired Intellectual Property"), including, but not limited to, the Acquired Know-How, related to amphetamine amino acid (including, but not limited to, standard, nonstandard, natural, unnatural and synthetic amino acids) conjugates, which the parties agree include the Patents indicated to be assigned to Shire in Schedule 2.1(c).

"Acquired Know-How" means, to the extent related to or necessary for the manufacture, testing, use or sale of the Acquired Products, any and all product specifications, formal and draft processes, formal and draft product designs, formal and draft manufacturing specifications, engineering and other manuals and drawings, standard operating procedures, flow diagrams, chemical, pharmacological, toxicological, pharmaceutical, physical and analytical, safety, quality assurance, quality control and clinical data, technical information, data, research records and similar data and information.

Shire acknowledges that KemPharm's [*] is not an Acquired Asset or Acquired Know-How, except to the extent that it directly involves amino acid amphetamine conjugates.

Shire and the KemPharm Parties expressly understand and agree that any assets, interests, rights and claims of the KemPharm Parties that are not expressly included in the definition of Acquired Assets shall not be included in the Acquired Assets.

2.2. The foregoing Section 2.1 notwithstanding, to the extent Acquired Documents or Acquired Know-How are comingled or intertwined with any other documents and/or information of KemPharm, KemPharm agrees to use reasonable efforts to extract the Acquired Documents and Acquired Know-How from such comingled or intertwined documents. In the event KemPharm is reasonably unable to so extract the Acquired Documents or Acquired Know-How, KemPharm shall provide copies of such Acquired Documents or Acquired Know-How. To the extent original Acquired Documents or Acquired Know-How remain in KemPharm's possession, KemPharm agrees to keep the information contained therein confidential and protect such confidential information in the same manner KemPharm protects its own confidential information.

2.3. Assumption of Liabilities by Shire. On the terms and subject to the conditions set forth in this Agreement, Shire agrees, effective at the time of the Closing (as defined in Section 2.6), to assume all liabilities and obligations of any kind, character or description (whether known or unknown, accrued, absolute, fixed, contingent, matured or unmatured, arising by law or by contract or otherwise) to the extent relating to or arising from the Acquired Assets on or after the Closing Date (the "Assumed Liabilities"). Notwithstanding any provision in this Agreement or any other writing to the contrary, Shire shall assume only the Assumed Liabilities and is not assuming any other liability or obligation of whatever nature, whether presently in existence or arising hereafter.

2.4. Excluded Liabilities. All of the KemPharm Parties' liabilities and obligations other than the Assumed Liabilities shall be retained by and remain liabilities and obligations of the KemPharm Parties (the "Excluded Liabilities"), including, but not limited to, the following:

(a) Any liabilities or obligations relating to or arising out of Contracts to which any of the KemPharm Parties is a party or otherwise has assumed any obligation, included in the Acquired Assets relating to or arising out of (i) any breach of such Contracts occurring on or prior to the Closing or (ii) any violation of law, breach of warranty, tort or infringement occurring or arising on or prior to the Closing, or any Action or demand related to facts, events or circumstances occurring on or prior to the Closing;

(b) Any liabilities or obligations of the KemPharm Parties under this Agreement or the other Settlement Documents or the transactions contemplated hereby or thereby;

(c) Any liabilities or obligations of the KemPharm Parties to indemnify, reimburse or advance amounts to any officer, director, employee or agent of the KemPharm Parties;

(d) Any liabilities or obligations relating to an Excluded Asset; and

(e) All liabilities and obligations of any kind, character or description (whether known or unknown, accrued, absolute, fixed, contingent, matured or unmatured, arising by law or by contract or otherwise) to the extent relating to or arising from the Acquired Assets before the Closing Date.

2.5. Purchase Price. The purchase price for the Acquired Assets is $22 million (U.S.), to be paid as provided in Section 2.6(a).

2.6. Closing. The closing (the "Closing") of the purchase and sale of the Acquired Assets shall take place at the offices of Frommer, Lawrence, and Haug LLP, located in New York, New York at 10:00 AM Eastern Time on the third (3rd) Business Day following the satisfaction or waiver in writing of all Conditions to Closing. At the Closing:

(a) Shire shall, subject to the terms and conditions set forth herein, in full and complete consideration of the sale, assignment, conveyance, transfer and delivery of the Acquired Assets and the other rights and obligations set forth in this Agreement or the Settlement Agreement, deliver, or cause to be delivered, the Purchase Price as follows:

(i) $[*] (U.S.), to be paid directly to [*] by wire transfer pursuant to the following instructions:

Bank of America
135 S.LaSalle
Chicago, IL 60603
Account No [*]
ABA: [*]

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

(ii) $[*] (U.S.), to be paid directly to KemPharm by wire transfer pursuant to the following instructions:

Bank:	Wells Fargo Bank, N.A.
Bank address:	327 2nd Street, Coralville, Iowa
ABA Routing #:	[*]
Beneficiary Name:	KemPharm, Inc.
Beneficiary Account number:	[*]

(iii) $[*] (U.S.), to be paid directly to KemPharm's counsel, McAndrews, Held & Malloy Ltd., by wire transfer pursuant to the following instructions:

McAndrews, Held and Malloy, Ltd.
PNC Bank
249 Fifth Avenue
One PNC Plaza
Pittsburgh, Pennsylvania 15222
USA
ABA: [*]
ACH Routing Number: [*]
Wire Routing Number: [*]
Swift Code: [*]
Account Number: [*]

(b) KemPharm shall, subject to the terms and conditions set forth herein, deliver to Shire a fully executed general assignment agreement and bill of sale (the "Assignment Agreement," attached hereto as Exhibit A) conveying all right and title to the Acquired Assets to Shire.

2.7. Deliveries by KemPharm. On or before the Closing Date, subject to the terms and conditions set forth herein (including Section 2.2, KemPharm shall deliver to Shire the following (collectively with the Assignment Agreement, the "KemPharm Deliverables"):

(a) any Acquired Documents;

(b) any Acquired Inventory in KemPharm's possession; and

(c) all New River documents in the KemPharm Parties' possession or control, to the extent they exist and are designated for return to Shire on Schedule 2.7(c). Shire agrees that the KemPharm Parties may, prior to the Closing Date, return and amend the Schedule 2.7(c) list as to any documents that the KemPharm Parties identify between the Execution Date and the Closing Date. After delivery to Shire, upon written confirmation from Shire, the KemPharm Parties shall destroy all such documents, including deleting all electronic documents.

2.8. Conditions to Closing. The Parties' obligation to consummate the transactions set forth hereunder is subject to the following conditions (the "Conditions to Closing"):

(a) The representations and warranties made by the KemPharm Parties hereunder shall be true and correct in all material respects on and as of the Closing Date as though made on and as of the Closing Date;

(b) The representations and warranties made by Shire hereunder shall be true and correct in all material respects on and as of the Closing Date as though made on and as of the Closing Date;

(c) The KemPharm Parties shall have performed in all material respects all of their covenants, agreements and obligations hereunder required to be performed by them on or prior to the Closing Date, including, but not limited to, the conduct of business related to the Acquired Assets in accordance with Section 5.1;

(d) [*] shall have executed and delivered to Shire the Release and Consent attached hereto as Schedule 2.8(d) (the "Shire Release and Consent"); and

(e) There shall not be in effect on the Closing Date any judgment, order, decree, ruling or charge restraining, enjoining or otherwise prohibiting or making illegal the consummation of any of the transactions contemplated by this Agreement.

2.9. Communications Regarding Closing. The Parties shall communicate with each other regarding the satisfaction (or waiver in writing) of any of the foregoing Conditions to Closing.

2.10. Failure to Close. In the event (i) there is no Closing Date within sixty (60) days of February 9, 2011, or (ii) [*] exercises its right of first refusal under Section 6.2 of the [*] Agreement (a "Failure to Close"), within three (3) Business Days of the Failure to Close, the Parties agree that they will jointly petition the Court in the Pending Litigation to reinstate a trial date, and request that such trial date be at least thirty (30) days after the Failure to Close. In the event of a Failure to Close the obligations and rights set forth in this Agreement shall immediately terminate. The KemPharm Parties will notify Shire within twenty-four (24) hours of receiving notice from [*] that [*] is, or is not, (i) exercising its right of first refusal under Section 6.2 of the [*] Agreement, (ii) executing the Shire Release and Consent; or (iii) executing the KemPharm Release and Consent.

2.11. Inventory. Notwithstanding Section 2.1(b), KemPharm shall not deliver to Shire any of the Acquired Inventory in [*] form. KemPharm shall destroy, or have destroyed, such non-delivered Acquired Inventory and provide Shire with a certification of destruction. Any Acquired Inventory in the possession of [*] (except for the Acquired Inventory in [*] form to be destroyed) will be delivered to Shire within five (5) Business Days of the Closing Date.

2.12. Covenant Not To Compete. KemPharm and Travis Mickle covenant that neither KemPharm nor any of its officers, directors or employees, nor Travis Mickle shall (i) directly, or indirectly, anywhere in the world, for a period of five (5) years, make, have made, use, develop, import/export, file any Patent with respect to, make any regulatory filings with respect to, promote, market, manufacture, distribute, offer to sell, sell or otherwise commercialize any

amphetamine amino acid (including, but not limited to, standard, nonstandard, natural, unnatural and synthetic amino acids) conjugate products (excluding any methylphenidate amino acid (including, but not limited to standard, nonstandard, natural, unnatural and/or synthetic amino acids) conjugates, products or prodrugs); or (ii) cause, support, authorize, aid, facilitate, support, assist, or license any person or entity in the forgoing. For clarity and the avoidance of confusion and irrespective of any other provisions of this Agreement, this covenant not to compete shall not apply to non-amino acid conjugates or prodrugs or non-amphetamine conjugates, products or prodrugs, including, without limitation, methylphenidate amino acid (including, but not limited to standard, nonstandard, natural, unnatural and/or synthetic amino acids) conjugates, products or prodrugs (including, but not limited to KemPharm's [*].

2.13. Right of First Refusal. The KemPharm Parties hereby grant Shire a right of first refusal to acquire, license, and/or commercialize KemPharm's methylphenidate amino acid conjugate identified by KemPharm as KP415. Shire's right of first refusal shall be available for a period of no greater than thirty (30) Business Days following receipt of written notice from KemPharm of the existence of a bona fide offer to acquire, license, and/or commercialize KP415 from a third party. KemPharm shall disclose material terms of the offer to Shire. If Shire fails to exercise its right of first refusal to acquire, license, and/or commercialize KP415, then, for example, KemPharm or a third party licensee, purchaser may commercialize KP415.

2.14. Cooperation. Travis Mickle hereby agrees to provide reasonable cooperation to Shire (limited to reasonable time demands given Dr. Mickle's other obligations) regarding any third party litigation related to the Acquired Assets, Vyvanse, or any other Patents listed on Schedule 2.13, claiming any amphetamine amino acid (including, but not limited to, standard, nonstandard, natural, unnatural and synthetic amino acids) conjugate products, including, but not limited to, those Patents that claim formulations of, or the making or using such products, but exclusive of any methylphenidate amino acid (including, but not limited to standard, nonstandard, natural, unnatural and/or synthetic amino acids) conjugate products. Travis Mickle and Shire will enter into a customary consulting agreement regarding the foregoing cooperation, under which Travis Mickle will be compensated at an appropriate and customary rate for an expert in his field. In the event that a subpoena, motion or other application is served or filed in any court or tribunal in a case involving Shire and related to the Acquired Assets, Vyvanse, or any Patents listed on Schedule 2.13, seeking production of documents or testimony by any of the KemPharm Parties, the Parties shall reasonably cooperate regarding the response to such subpoena, motion or other application, including the KemPharm Parties agreeing to be represented by legal counsel of Shire's choosing, at Shire's sole cost and expense.

2.15. Regulatory Approvals. The Parties shall file with the FDA all documents and information required in order to transfer the Regulatory Approvals from KemPharm to Shire at Shire's expense. Within three (3) days of the Closing Date, each Party shall mail to FDA their respective FDA Letter, return receipt requested. Each Party shall provide the other with proof that FDA received their respective FDA Letter in the form of a copy of such returned receipt.

2.16. Taxes. Except as otherwise expressly set forth in this Agreement, KemPharm Parties shall be responsible for and shall promptly pay all transfer, sales, excise and income taxes, levies and assessments, if any, imposed, assessed or collected by or under the authority of

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

any Governmental Authority resulting from or payable as a result of the sale of the Acquired Assets pursuant to this Agreement. Shire and its Affiliates shall be responsible for and shall promptly pay all taxes, levies and assessments of any kind, if any, imposed, assessed or collected by or under the authority of any Governmental Authority resulting from or payable as a result of any income or gain of Shire and/or its Affiliates with respect to the Acquired Assets.

ARTICLE 3
REPRESENTATIONS AND WARRANTIES OF THE KEMPHARM PARTIES

The KemPharm parties hereby represent and warrant to Shire that:

3.1. Assets. As of the Closing Date and as of the Execution Date of this Agreement, except as to any claims by Shire or [*] under the [*] Agreement, KemPharm owns all right and title to the Acquired Assets. As of the Closing Date, except as to any claims by Shire, KemPharm owns all right and title to the Acquired Assets;

3.2. Encumbrances. As of the Closing Date and as of the Execution Date of this Agreement, except as to [*]'s rights under the [*] Agreement, the Acquired Assets are free and clear of any Encumbrances;

3.3. Obligation to Commercialize. As of the Closing Date, the Acquired Assets are free and clear of Encumbrances, including, but not limited to, any right of [*] and free of any obligation by Shire to develop, commercialize or otherwise exploit the Acquired Assets;

3.4. Corporate Organization, Power. As of the Closing Date and as of the Execution Date of this Agreement, the KemPharm Parties have all requisite corporate power and authority to execute, deliver, grant, and perform the covenants and transactions contemplated herein, and to consummate the transactions contemplated herein. The execution, delivery, and performance of this Agreement does not, and the consummation of the transactions contemplated hereby and will not, violate or conflict with (i) any provision of KemPharm's organizational documents, (ii) any law applicable to KemPharm Parties, or (iii) any agreement, mortgage, lease, instrument, order, judgment, or decree to which any of the KemPharm Parties is a party or by which any of the KemPharm Parties is bound; and

3.5. Freedom from Claims. As of the Closing Date and as of the Execution Date of this Agreement, except as to claims by Shire, there is no claim, action, suit, proceeding, investigation, or arbitration relating to the Acquired Assets pending or, to KemPharm Parties' knowledge, threatened against any of the KemPharm Parties by or before any regulatory authority, federal, state, or other governmental court, department, commission, or board and there is not currently outstanding against any of the KemPharm Parties any judgment, decree, injunction, rule or order of any regulatory authority or Governmental Authority relating to the Acquired Assets.

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ARTICLE 4
REPRESENTATIONS AND WARRANTIES OF SHIRE

Shire hereby represents and warrants, on behalf of itself and its Affiliates, to the KemPharm Parties that:

4.1. Corporate Organization, Power. As of the Closing Date and as of the Execution Date of this Agreement, Shire has all requisite corporate power and authority to execute, deliver, grant, and perform the covenants and transactions contemplated herein, and to consummate the transactions contemplated herein, on behalf of itself and its Affiliates. The execution, delivery, and performance of this Agreement does not, and the consummation of the transactions contemplated hereby will not, violate or conflict with (i) any provision of Shire's organizational documents, (ii) any law applicable to Shire, or (iii) any agreement, mortgage, lease, instrument, order, judgment, or decree to which Shire is a party or by which Shire is bound; and

4.2. Access to Funds. As of the Execution Date of this Agreement, Shire has access to, and as of the Closing Date, Shire will have, sufficient funds necessary to pay the Purchase Price.

ARTICLE 5
ADDITIONAL AGREEMENTS

5.1. Conduct of the Business Until Closing. Except for the actions taken or omitted to be taken on Shire's written consent, from the Execution Date of this Agreement until the Closing, the KemPharm Parties shall:

(a) use diligent efforts to procure from [*] the execution and delivery to Shire of the Release and Consent attached hereto as Schedule 2.8(d);

(b) not sell, transfer, convey or assign any rights, title, or interest in the Acquired Assets to any third party, and shall not take any action that would result in any Encumbrances on the Acquired Assets; and

(c) except to the extent specifically contemplated by this Agreement, conduct its business with respect to the Acquired Assets in a manner that: (i) is consistent in nature, scope and magnitude with the past practices of KemPharm and is taken in the ordinary course of the normal, day-to-day operations of KemPharm; (ii) does not require authorization by the board of directors or shareholders of KemPharm and does not require any other separate or special authorization of any nature; and (iii) is similar in nature, scope and magnitude to actions customarily taken, without any separate or special authorization, in the ordinary course of the normal, day-to-day operations of other companies in the same line of business as KemPharm.

5.2. Expenses. Except as specifically set forth for indemnification pursuant to Article 6, all expenses, including the fees of any attorneys, accountants, investment bankers or others engaged by a Party, incurred in connection with this Agreement and the transactions contemplated hereby shall be paid by the Party incurring such expenses, whether or not the transactions contemplated by this Agreement are consummated.

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ARTICLE 6
INDEMNIFICATION

6.1. Indemnification by the KemPharm Parties. Subject to the provisions of this Article 6, from and after the Closing Date, the KemPharm Parties shall reimburse and indemnify Shire, Shire's Affiliates, and their respective officers, directors, employees, and agents in respect of, and hold each of them harmless from and against, any and all liabilities, damages, fines, penalties, deficiencies, losses and expenses (including interest, court costs, amounts paid in settlement, reasonable fees of attorneys, accountants and other experts or other reasonable expenses of litigation or other proceedings or of any claim, default or assessment) arising from any claim, lawsuit or other action by a Third Party and are payable to such Third Party (collectively, "Losses") suffered, incurred, or sustained by any of them or to which any of them becomes subject, resulting from, arising out of, or relating to:

(a) any misrepresentation or breach of a representation or warranty by the KemPharm Parties made or contained herein or in the Settlement Agreement;

(b) any failure of the KemPharm Parties to materially perform or observe any covenant or agreement to be performed or observed by the KemPharm Parties pursuant to this Agreement or the Settlement Agreement; and

(c) any action or inaction of the KemPharm parties with respect to the Acquired Assets prior to the Closing Date.

Notwithstanding the foregoing, with respect to any claim for indemnification pursuant to this Article 6 of Losses which relate to or arise out of (i) a claim in the nature of product liability, (ii) clinical trials or clinical data, and/or (iii) the manufacture of any KP106 product, KemPharm Parties shall not be liable for such indemnification claim (1) if the aggregate amount of such indemnifiable Losses is less than $[*] (U.S.), and (2) to the extent that the aggregate amount of such indemnifiable Losses exceeds $[*] (U.S.).

6.2. Indemnification by Shire. Subject to the provisions of this Article 6, from and after the Closing Date, Shire shall reimburse and indemnify the KemPharm Parties, and their respective officers, directors, employees, and agents in respect of, and hold each of them harmless from and against, any and all Losses (as defined above) suffered, incurred, or sustained by any of them or to which any of them becomes subject, resulting from, arising out of, or relating to:

(i) any misrepresentation or breach of a representation or warranty by Shire made or contained herein or in the Settlement Agreement;

(ii) any failure of Shire to materially perform or observe any covenant or agreement to be performed or observed by Shire pursuant to this Agreement or the Settlement Agreement; and

(iii) any action or inaction of Shire with respect to the Acquired Assets after the Closing Date.

6.3. Procedures.

(a) Promptly after any Person entitled to indemnity hereunder receives notice or otherwise becomes aware of any Third Party claim reasonably expected to be formally made against a Party or the commencement of any Third Party action or proceeding, in each case which may give rise to indemnification hereunder (a "Claim"), such Person (the "Aggrieved Party") shall, if an indemnity claim with respect thereto is to be made against any Party obligated to provide indemnification pursuant to this Article 6 (the "Indemnifying Party"), give such Indemnifying Party written notice of such claim or the commencement of such action or proceeding or any of the foregoing; provided, however, that failure to give such notification will not affect the indemnification provided hereunder except to the extent the Indemnifying Party shall have been actually prejudiced as a result of such failure. The Indemnifying Party may elect to assume the defense of any such Claim, or any litigation resulting from such Claim. Upon such assumption, the Aggrieved Party shall reasonably cooperate fully with the Indemnifying Party in the conduct of such defense. Such duty on the part of the Aggrieved Party to cooperate in such defense shall include (i) providing reasonable assistance in compiling and verifying responses to discovery requests, (ii) providing reasonable access to its employees for purposes of consulting, , providing deposition and trial testimony and expert opinions and (iii) making reasonably available to the Indemnifying Party all books, records and other information as may have relevance to the defense. The Aggrieved Party may participate, at its expense (not subject to indemnification hereunder), in the defense of such Claim; provided, however, that the Indemnifying Party shall direct and control the defense of such Claim. The Indemnifying Party shall not, in the defense of such Claim, consent to entry of any judgment or enter into any settlement, except with the written consent of the Aggrieved Party which, in either case, may not be unreasonably withheld, delayed or conditioned. In addition, all awards and costs payable by a Third Party to the Aggrieved Party or the Indemnifying Party shall belong to the Indemnifying Party. The Indemnifying Party shall not be entitled to control, and the Aggrieved Party shall be entitled to have sole control over, the defense or settlement of any claim to the extent that such claim seeks any injunction relief against the Aggrieved Party.

(b) If the Indemnifying Party shall fail to assume the defense of a Claim, the Aggrieved Party may defend against such Claim in such reasonable manner as it may deem appropriate and the Aggrieved Party may settle such Claim (but only with the consent of the Indemnifying Party, which consent shall not be unreasonably withheld, delayed or conditioned) on such terms as it may deem appropriate with reasonable advance notice to the Indemnifying Party, and, if the refusal to defend is in breach of the obligations hereunder, the Indemnifying Party shall promptly reimburse the Aggrieved Party for the amount of any indemnifiable Losses incurred by the Aggrieved Party in connection with the defense against or settlement of such Claim.

6.4. Losses. The amount of any Loss for which indemnification is provided under this Article 6 shall be net of (i) any amounts recovered by the Aggrieved Party or any of its Affiliates pursuant to any indemnification by or indemnification agreement with any Third Party, (ii) any insurance proceeds or other cash receipts or sources of reimbursement received as an offset against such Loss, and (iii) any tax benefit to the extent such benefit was actually taken or available to the Aggrieved Party. Parties shall take and shall cause their Affiliates to take all reasonable steps to mitigate any Losses upon becoming aware of any event that would reasonably be expected to, or does, give rise thereto, including incurring costs only to the minimum extent necessary to remedy a breach that gives rise to the Loss. If the amount to be netted hereunder from any payment required under Article 6 is determined after payment by the Indemnifying Party of any amount otherwise required to be paid to an Aggrieved Party pursuant to this Section 6.4, the Aggrieved Party shall repay to the Indemnifying Party, promptly after such determination, any amount that the Indemnifying Party would not have had to pay pursuant to this Section 6.4, had such determination been made at the time of such payment.

ARTICLE 7
CONFIDENTIALITY AND PUBLIC DISCLOSURE

7.1. Confidentiality. The terms of this Agreement, and the Settlement Agreement, and the negotiations of the Parties pertaining to them shall be maintained in confidence by the Parties. No Party shall make any announcement or other publicity relating to the transactions contemplated by this Agreement without the prior written consent of the other Party, which consent may be withheld at such other Party's sole discretion. The foregoing notwithstanding: (i) each Party shall be free to make such disclosures as may be necessary to comply with all Applicable Laws and regulations to which it may be subject, including reporting requirement of any stock exchange to which the Parties are subject; (ii) following the Closing Date the Parties may state publicly that the Pending Litigation has been settled on terms that are confidential using the following statement approved by the Parties: "Shire and Dr. Travis Mickle and KemPharm, Inc. have dismissed with prejudice all pending claims and counterclaims against one another;" (iii) either Party may disclose such terms in discovery as otherwise required by court order, provided that the other Party shall be given the opportunity to (a) review and comment on the proposed disclosure reasonably in advance of the disclosure, and (b) quash such order and to obtain a protective order requiring that the information and documents that are the subject of such order be held in confidence by such court; and (iv) either Party may disclose such terms to such Party's actual and prospective investors and lenders, actual or potential partners for business development purposes, attorneys, accountants, insurers and consultants on a need-to-know basis and who have agreed in writing and in advance to maintain the confidentiality of such information.

ARTICLE 8
GENERAL PROVISIONS

8.1. Limitation of Liability.

EXCEPT FOR THE PARTIES' INDEMNIFICATION OBLIGATIONS, NO PARTY WILL BE LIABLE TO ANY OTHER PARTY WITH RESPECT TO ANY SUBJECT MATTER OF THIS

AGREEMENT UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR (a) ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES, (b) ANY LOST PROFITS OR LOST BUSINESS OR (c) COST OF PROCUREMENT OF SUBSTITUTE GOODS, TECHNOLOGY OR SERVICES; EVEN IF THE REMEDIES PROVIDED FOR IN THIS AGREEMENT FAIL OF THEIR ESSENTIAL PURPOSE AND EVEN IF EITHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OR PROBABILITY OF SUCH DAMAGES.

8.2. Disclaimer of Certain Warranties. Nothing in this Agreement is or shall be construed as:

(a) A warranty or representation by the KemPharm Parties that anything made, used, imported, sold, or offered for sale under the Acquired Products is or will be free from infringement of any Patent rights, foreign or domestic, or other intellectual property rights of any third party and/or KemPharm's Patent rights beyond the Acquired Intellectual Property not covered by this Agreement; or

(b) An obligation of the KemPharm Parties to bring or prosecute actions or suits against third parties for infringement of the Acquired Products; or

(c) Granting, by implication, estoppel, or otherwise, any rights to Shire under Patents or other rights of the KemPharm Parties or third parties other than as expressly provided herein.

EXCEPT AS EXPRESSLY PROVIDED HEREIN, THE KEMPHARM PARTIES MAKE NO WARRANTIES WITH RESPECT TO ANY OF THE ACQUIRED PRODUCTS, WHETHER EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, KEMPHARM SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OF QUALITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT.

8.3. Notices. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given if delivered personally, mailed by reputable overnight courier or certified mail (return receipt requested) or sent by fax (confirmed thereafter by such certified mail), to the Parties at the following addresses or at such other addresses as shall be specified by Parties:

(a) if to Shire:

Shire LLC
9200 Brookfield Court
Florence, KY 41042
Attn: Associate General Counsel
Fax: 1 484 595 8674

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

(b) if to KemPharm:

KemPharm, Inc.
7 Hawkeye Drive, Suite 103
North Liberty, IA 52317
Attn: Travis C. Mickle, Ph.D., President and Chief Scientific Officer
Facsimile: (319) 665-2577

With copy to Thomas J. Wimbiscus

McAndrews, Held & Malloy, Ltd.
Suite 3400
500 W. Madison St.
Chicago, IL 60661
Facsimile: (312) 775-8100

Notices hereunder will be effective only if in writing and upon receipt if delivered personally or by overnight mail carrier or fax transmission or other electronic means, or three (3) Business Days after deposit in the U.S. mail, first class postage prepaid to the applicable addressee.

8.4. Amendment. This Agreement may not be amended except by an instrument in writing signed by each of the Parties.

8.5. Waiver. Any term, provision or condition of this Agreement may be waived (or the time for performance of any of the obligations or other acts of Parties hereto may be extended) only if in writing and signed by the Party that is entitled to the benefit of such term, provision or condition. No waiver or modification of this Agreement will be binding upon either Party unless made in writing and signed by a duly authorized representative of such Party and no failure or delay in enforcing any right will be deemed a waiver.

8.6. Parties in Interest. No Party may delegate its duties under this Agreement without the consent of the other Parties hereto. No Party may assign its rights under this Agreement without the consent of the other Parties hereto, other than in connection with a merger, consolidation or similar reorganization, or sale of all or substantially all of its assets. This Agreement shall not run to the benefit of or be enforceable by any Person other than a Party to this Agreement and, subject to this Section 8.6, its successors and permitted assigns. Any assignment of this Agreement in contravention of this Section 8.6 shall be null and void ab initio.

8.7. Entire Agreement. This Agreement (including the documents and instruments referred to herein) and Settlement Agreement, constitute the entire agreement and supersedes all other prior agreements and undertakings, both written and oral, between the Parties, with respect to the subject matter hereof.

8.8. Governing Law; Jurisdiction. This Agreement shall be governed by the laws of the State of Delaware, excluding its conflict of law rules, and both Parties hereby consent to the personal and exclusive jurisdiction of the United States District Courts located in the State of

Maryland and the City of Baltimore to resolve any disputes arising under this Agreement. Notwithstanding the foregoing, if there is any dispute for which the United States District Courts located in the State of Maryland and the City of Baltimore does not have subject matter jurisdiction, the state courts in the State of Maryland and the City of Baltimore shall have jurisdiction.

8.9. Counterparts. This Agreement may be executed in one or more counterparts, including by transmission of facsimile or PDF copies of signature pages, each of which shall for all purposes are deemed to be an original and all of which shall constitute on instrument.

8.10. Third Party Beneficiaries. This Agreement shall be binding upon and inure solely to the benefit of the Parties hereto, their Affiliates, successors and permitted assigns, and nothing in this Agreement, express or implied, is intended to or shall confer upon any other person or entity any rights, benefits or remedies of any nature whatsoever under or by reason of this Agreement.

8.11. Further Assurances. Each Party shall execute and deliver such additional instruments and other documents, and use all reasonable efforts to take or cause to be taken, all actions and to do, or cause to be done, all things necessary under Applicable Law to consummate the transactions contemplated hereby. This includes, for instance, but is not limited to, executing any and all Patent assignments, and requiring employees or agents to execute any and all Patent assignments, necessary under Applicable Law to consummate the transactions contemplated hereby.

8.12. Validity. If any provisions of this Agreement shall be held to be illegal, invalid or unenforceable under any Applicable Law, then such contravention or invalidity shall not invalidate the entire Agreement. Such provision shall be deemed to be modified to the extent necessary to render it legal, valid and enforceable, and if no such modification shall render it legal, valid and enforceable, then this Agreement shall be construed as if not containing the provision held to be invalid, and the rights and obligations of the Parties shall be construed and enforced accordingly.

8.13. Interpretation and Construction. All capitalized terms not defined herein shall have the meaning assigned to such term in the Settlement Agreement. Unless the context of this Agreement otherwise requires, (i) the terms “include,” “includes,” or “including” shall be deemed to be followed by the words “without limitation” unless otherwise indicated; (ii) the terms “hereof,” “herein,” “hereby,” and derivative or similar words refer to this entire Agreement; and (iii) the terms “Article,” “Section” and “Exhibit” refer to the specified Article, Section and Exhibit of this Agreement. Whenever this Agreement refers to a number of days, unless otherwise specified, such number shall refer to calendar days. The headings and paragraph captions in this Agreement are for reference and convenience purposes only and shall not affect the meaning or interpretation of this Agreement. This Agreement shall not be interpreted or construed in favor of or against either Party because of its effort in preparing it. As used in this Agreement, the masculine shall include the feminine and neuter, the singular shall include the plural and the plural shall include the singular, as the context may require.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

8.14. Independent Parties. In making and performing this Agreement the Parties are acting and shall act as independent contractors. Nothing in this Agreement shall be deemed to create an agency, joint venture or partnership relationship between the Parties. This Agreement shall become binding upon its execution.

[Signature Page Follows]

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

[Signature Page to Asset Purchase Agreement]

IN WITNESS WHEREOF, the Parties hereto have each caused this Asset Purchase Agreement to be executed by their authorized representatives as of the Execution Date.

SHIRE LLC

By: /s/ Mike Chapman

Name: Mike Chapman

Title: President

Date: 21 Mar 2012

KEMPHARM INC.

By: /s/ Travis Mickle

Name: Travis Mickle

Title: CEO and President

Date: 3/21/12

TRAVIS C. MICKLE, PH.D.

By: /s/ Travis Mickle

Personally

Date: 3/21/12

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SCHEDULE 2.1(c)
THE KEMPHARM, INC. PATENT APPLICATION
PORTFOLIO AT DATE OF EXECUTION OF THE ASSET PURCHASE AGREEMENT

Attorney Docket Number	Title	Application Number	Patent Number	Country	Status	Sub-Status	Filing Date

[* 8 pages of text omitted]

[* Footnotes 1-4 omitted]

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SCHEDULE 2.7(c)

DESCRIPTION	BATES RANGE	CUSTODIAN	AUTHOR
	[*]		
[11 pages of text omitted]			
[*]			
	[*]		
[2 pages of text omitted]			
[*]			

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

DESCRIPTION		BATES RANGE	CUSTODIAN	AUTHOR
	[*]			
[3 rows of text omitted]				
	[*]			
[*]				

[*]

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

DESCRIPTION		BATES RANGE	CUSTODIAN	AUTHOR
	[*]			
[*]				
	[*]			
[3 rows of text omitted]				

[*]

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DESCRIPTION		BATES RANGE	CUSTODIAN	AUTHOR
	[*]			
[*]				
	[*]			
[*]				
	[*]			
[* 2 rows of text omitted]				

[*]

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DESCRIPTION		BATES RANGE	CUSTODIAN	AUTHOR
	[*]			
[*]				
	[*]			
[* 3 rows of text omitted]				

[*]

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DESCRIPTION		BATES RANGE	CUSTODIAN	AUTHOR
	[*]			

[* 2 rows of text omitted]

[*]

[*]

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SCHEDULE 2.8(d)

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Shire LLC
9200 Brookfield Court
Florence, Kentucky
Telephone 800-828-2088

EXECUTION COPY

March 20, 2012

[* – 4 pages of text omitted]

Very truly yours,
Shire LLC

By: _____
Name: Mike Chapman, President
Title: _____
Date: _____

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

ACKNOWLEDGED AND AGREED:
[*]
Date: _____

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

SCHEDULE 2.13

- All United States Patents listed in Table 1 (below) and all Patents to which all the Patents in Table 1 claim priority.
- All Patents that are family members claiming priority to or from those Patents listed in Table 1, limited to those family members that contain in a claim reference to an amphetamine-amino acid conjugate.
- All foreign Patents that are counterparts claiming priority to or from those Patents listed in Table 1, limited to those counterparts that contain in a claim reference to an amphetamine-amino acid conjugate.
- All Patents to be assigned to Shire LLC to the extent expressly identified to be assigned to Shire in accordance with footnote 1 in Schedule 2.1c of Exhibit A, as well as any future patent applications that are family members or counterparts to those expressly identified patent applications expressly identified to be assigned to Shire in accordance with footnote 1 in Schedule 2.1c, limited to those future applications that contain in a claim reference to an amphetamine-amino acid conjugate.

Table 1

U.S. Patent Nos.
[*]
U.S. Patent Applications
[*]

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT A
GENERAL ASSIGNMENT AND BILL OF SALE

THIS GENERAL ASSIGNMENT AND BILL OF SALE (this "General Assignment") dated as of , 2012 (the "Closing Date"), by and between, on the one hand, Shire LLC, a corporation organized and existing under the laws of Kentucky with its principal place of business in Florence, Kentucky ("Shire"), and, on the other hand, Travis C. Mickle, Ph.D. ("Travis Mickle") and KemPharm, Inc., a corporation organized and existing under the laws of Iowa with its principal place of business in Iowa City, Iowa, and also with a facility in Blacksburg, Virginia, and its Affiliates ("KemPharm," and, together with Travis Mickle, the "KemPharm Parties"). Shire and the KemPharm Parties may each be referred to herein individually as a "Party," and collectively as the "Parties."

WHEREAS, KemPharm and Shire are Parties to that certain Asset Purchase Agreement of even date herewith (the "Asset Purchase Agreement"), pursuant to which certain assets of KemPharm are to be transferred to Shire; and

WHEREAS, in performance of their respective obligations under the Asset Purchase Agreement, KemPharm and Shire desire to execute and deliver this General Assignment;

NOW, THEREFORE, for and in consideration of the foregoing premises and the mutual covenants contained herein, and for other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, the Parties do hereby agree as follows:

1. Capitalized terms used but not defined herein shall have the meanings for such terms that are set forth in the Asset Purchase Agreement.

2. KemPharm does hereby sell, assign, convey, grant and transfer unto Shire, to have and to hold forever, the Acquired Assets including, without limitation, all of KemPharm's right, title and interest, of every nature and description, in and to the Acquired Assets, wherever located.

3. Shire does hereby accept the assignment and assumes and agrees to observe, perform all of the duties, responsibilities, obligations, terms, provisions and covenants, and to pay and discharge all of the Assumed Liabilities.

4. This General Assignment shall inure to the benefit of, and be binding upon, the Parties hereto and their respective heirs, successors, trustees, transferee and assigns.

5. This General Assignment is executed by the Parties and shall be binding upon each Party and its successors and assigns, for the uses and purposes set forth above and referred to herein, effective immediately upon its execution by the Parties.

6. Each of the Parties hereto covenants and agrees, at its own expense and without further consideration, to acknowledge, execute and deliver, at the request of the other Party hereto, all such further instruments of transfer, conveyance, and/or assignment and to take such other action as such other Party may reasonably request to effectuate the provisions set forth in the General Assignment to Shire.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

7. In the event of any conflict or inconsistency between the terms of the Asset Purchase Agreement and the terms hereof, the terms of the Asset Purchase Agreement shall govern.

8. This General Assignment may be executed in one or more counterparts, including by transmission of facsimile or PDF copies of signature pages, each of which shall for all purposes are deemed to be an original and all of which shall constitute one and the same instrument.

[Signature Page Follows]

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

[Signature Page to General Assignment and Bill of Sale]

IN WITNESS WHEREOF, the Parties hereto have each caused this General Assignment and Bill of Sale to be duly executed as of the date first above written.

SHIRE, LLC

By: _____
Name:
Title:

KEMPHARM, INC.

By: _____
Name:
Title:

TRAVIS C. MICKLE, PH.D.

By: _____
Personally

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT B
FDA LETTERS

[KEMPHARM LETTERHEAD]

March , 2012

Dr. Thomas Laughren
Food and Drug Administration
Center of Drug Evaluation & Research
Division of Psychiatry Products
Metro Park North II
5901 Ammendale Road, Unit B
Betsville, MD 20705

General Correspondence: **Change of Ownership of Application**

IND Number: **[*] [insert title]**

Dear Dr. Laughren:

The purpose of this correspondence is to notify the FDA pursuant to 21 C.F.R. §314.72 that effective March _, 2012 KemPharm, Inc. hereby transfers and assigns all right to application for Investigational New Drug No. [*] to Shire LLC located at:

9200 Brookfield Court
Florence, KY 41042

Please do not hesitate to contact me with any questions you may have concerning this correspondence via telephone at or email at .

Sincerely,

[insert name]
[insert title]

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

cc:

Shire LLC
[insert name]
[insert title]
9200 Brookfield Court
Florence, KY 41042

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

[SHIRE LETTERHEAD]

March __, 2012

Dr. Thomas Laughren
Food and Drug Administration
Center of Drug Evaluation & Research
Division of Psychiatry Products
Metro Park North II
5901 Ammendale Road, Unit B
Betsville, MD 20705

General Correspondence: **Acceptance of Ownership of Application**

IND Number: **[*] [insert title]**

Dear Dr. Laughren:

In accordance with 21 C.F.R. §314.72 Shire LLC ("Shire") hereby accepts ownership of application for Investigational New Drug No. [*] effective March , 2012:

The attached form FDA 356h reflects the change in the applicant information section.

Shire hereby acknowledges the following conditions related to this change of ownership:

- Shire commits to all agreements, promises, and conditions made by KemPharm, Inc. contained in the application;
- The change in ownership is effective March , 2012;
- Shire has a complete copy of the approved application, including supplements and records that are required to be kept under Section 314.81.
- Shire shall advise FDA about any change in the conditions in the approved application under Section 314.70.

If you have any questions regarding this correspondence, please contact me at (484) 477-7587. If I am unavailable, please contact Linda Mota, Associate Manager, Regulatory Affairs at (484) 595-8397.

Sincerely,

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Randall Brenner
VP Global Regulatory Affairs

cc:
KemPharm, Inc.
[insert name]
[insert title]
[insert address]

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

KEMPHARM, INC.

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION

KEMPHARM, INC., a corporation organized and existing under the laws of the State of Delaware (the "***Company***"), does hereby certify as follows:

FIRST: The name of the Company is KemPharm, Inc.

SECOND: The Company's Certificate of Incorporation was filed on May 28, 2014.

THIRD: This Amended and Restated Certificate of Incorporation has been duly adopted and approved by the Board of Directors of the Company.

FOURTH: This Amended and Restated Certificate of Incorporation was approved by the holders of the requisite number of shares of the Company in accordance with Section 228 of the Delaware General Corporate Law ("***DGCL***"). This Amended and Restated Certificate of Incorporation has been duly adopted in accordance with the provisions of Sections 242 and 245 of the DGCL by the Board of Directors and the stockholders of the Company.

FIFTH: The Amended and Restated Certificate of Incorporation so adopted reads in full as set forth in Exhibit A attached hereto and is incorporated herein by reference in its entirety.

* * * *

IN WITNESS WHEREOF, KemPharm, Inc. has caused this Amended and Restated Certificate of Incorporation to be signed by its Chief Executive Officer on this day of , 2015.

KEMPHARM, INC.

By: _____
Travis C. Mickle, PhD
Chief Executive Officer

Exhibit A

KEMPHARM, INC.

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION

I.

The name of this corporation is KemPharm, Inc. (the "***Company***").

II.

The address of the registered office of the Company in the State of Delaware is 1209 Orange St., City of Wilmington, County of New Castle, Delaware, Zip code 19801, and the name of the registered agent of the Company in the State of Delaware at such address is The Corporation Trust Company.

III.

The purpose of the Company is to engage in any lawful act or activity for which a corporation may be organized under the Delaware General Corporation Law ("***DGCL***").

IV.

A. The Company is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares of all classes of capital stock which the Company shall have authority to issue is Two Hundred Sixty Million (260,000,000) shares, of which Two Hundred Fifty Million (250,000,000) shares shall be Common Stock (the "***Common Stock***"), each having a par value of one-tenth of one cent ($0.001), and Ten Million (10,000,000) shares shall be Preferred Stock (the "***Preferred Stock***"), each having a par value of one-tenth of one cent ($0.001).

B. The Preferred Stock may be issued from time to time in one or more series. The Board of Directors of the Company (the "***Board***") is hereby expressly authorized to provide for the issue of the shares of the Preferred Stock in one or more series, and to fix the number of shares and to determine or alter for each such series, such voting powers, full or limited, or no voting powers, and such designation, preferences, and relative, participating, optional, or other rights and such qualifications, limitations, or restrictions thereof, as shall be stated and expressed in the resolution or resolutions adopted by the Board providing for the issuance of such shares and as may be permitted by the DGCL. The Board is also expressly authorized to increase or decrease the number of shares of any series subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be decreased in accordance with the foregoing sentence, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series. The number of authorized shares

of Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the voting power of the stock of the Company entitled to vote thereon, without a separate vote of the holders of the Preferred Stock, or of any series thereof, unless a vote of any such holders is required pursuant to the terms of any certificate of designation filed with respect to any series of Preferred Stock.

C. Each outstanding share of Common Stock shall entitle the holder thereof to one vote on each matter properly submitted to the stockholders of the Company for their vote; *provided, however*, that, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Amended and Restated Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon by law or pursuant to this Amended and Restated Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock).

V.

For the management of the business and for the conduct of the affairs of the Company, and in further definition, limitation and regulation of the powers of the Company, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

A. MANAGEMENT OF BUSINESS. The management of the business and the conduct of the affairs of the Company shall be vested in its Board.

B. BOARD OF DIRECTORS.

1. Number. The number of directors that shall constitute the Board shall be fixed exclusively by resolutions adopted by a majority of the authorized number of directors constituting the Board.

2. Term. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, following the closing of the initial public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "***Securities Act***") covering the offer and sale of securities to the public (the "***Initial Public Offering***"), the directors shall be divided into three classes designated as Class I, Class II and Class III, respectively. The Board is authorized to assign members of the Board already in office to such classes at the time the classification becomes effective. At the first annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. At each succeeding annual meeting of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting. Notwithstanding the foregoing provisions of this section, each director shall serve until his or her

successor is duly elected and qualified or until his or her earlier death, resignation or removal. No decrease in the number of directors constituting the Board shall shorten the term of any incumbent director.

3. Removal.

a. Subject to the rights of any series of Preferred Stock to elect additional directors under specified circumstances, following the closing of the Initial Public Offering, neither the Board nor any individual director may be removed without cause.

b. Subject to any limitation imposed by law, any individual director or directors may be removed with cause by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all then-outstanding shares of capital stock of the Company entitled to vote generally at an election of directors.

4. Vacancies. Subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board resulting from death, resignation, disqualification, removal or other causes, and any newly created directorships resulting from any increase in the number of directors, shall, unless the Board determines by resolution that any such vacancies or newly created directorships shall be filled by the stockholders, except as otherwise provided by law, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified.

C. BYLAW AMENDMENTS. The Board is expressly empowered to adopt, amend or repeal the Bylaws of the Company. Any adoption, amendment or repeal of the Bylaws of the Company by the Board shall require the approval of a majority of the authorized number of directors. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the Company; *provided*, *however*, that, in addition to any vote of the holders of any class or series of stock of the Company required by law or by this Amended and Restated Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the Company entitled to vote generally in the election of directors, voting together as a single class.

D. WRITTEN BALLOTS. The directors of the Company need not be elected by written ballot unless the Bylaws so provide.

E. ACTION BY STOCKHOLDERS. No action shall be taken by the stockholders of the Company except at an annual or special meeting of stockholders called in accordance with the Bylaws and no action shall be taken by the stockholders by written consent or electronic transmission.

F. ADVANCE NOTICE. Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the Company shall be given in the manner provided in the Bylaws of the Company.

VI.

A. The liability of the directors for monetary damages shall be eliminated to the fullest extent under applicable law. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Company shall be eliminated to the fullest extent permitted by the DGCL, as so amended.

B. Any repeal or modification of this Article VI shall be prospective and shall not affect the rights under this Article VI in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

VII.

Unless the Company consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Company; (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Company to the Company or the Company's stockholders; (iii) any action asserting a claim against the Company arising pursuant to any provision of the General Corporation Law, the Amended and Restated Certificate of Incorporation or the Bylaws of the Company; or (iv) any action asserting a claim against the Company governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the Company shall be deemed to have notice of and to have consented to the provisions of this Article VII.

VIII.

A. The Company reserves the right to amend, alter, change or repeal any provision contained in this Amended and Restated Certificate of Incorporation, in the manner now or hereafter prescribed by statute, except as provided in paragraph B. of this Article VIII, and all rights conferred upon the stockholders herein are granted subject to this reservation.

B. Notwithstanding any other provisions of this Amended and Restated Certificate of Incorporation or any provision of law which might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class or series of the Company required by law or by this Amended and Restated Certificate of Incorporation or any certificate of designation filed with respect to a series of Preferred Stock that may be designated from time to time, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all of the then-outstanding shares of capital stock of the Company entitled to vote generally in the election of directors, voting together as a single class, shall be required to alter, amend or repeal Articles V, VI, VII and VIII.

* * * *

Exhibit 3.4

AMENDED AND RESTATED

BYLAWS OF

KEMPHARM, INC.

ARTICLE I. OFFICES

The principal office of the Corporation in the State of Iowa shall be located at 3015 Wind Ridge Drive, Coralville, Iowa, County of Johnson. The Corporation may have such other offices, either within or without the State of Iowa, as the Board of Directors may designate or as the business of the Corporation may require from time to time.

The registered office of the Corporation required by the Iowa Business Corporation Act to be maintained in the State of Iowa may be, but need not be, identical with the principal office in the State of Iowa, and the address of the registered office may be changed from time to time by the Board of Directors.

ARTICLE II. SHAREHOLDERS

SECTION 1. ANNUAL MEETING. The annual meeting of the shareholders shall be held on the second Tuesday in the month of February in each year, at the hour of 10:00 a.m., provided the Board may fix some other date which is within thirty (30) days before or after said date and may fix some time other than the above time for such meeting. The annual meeting shall be held for the purpose of electing Directors and for the transaction of such other business as maybe raised at the meeting. If the day designated above or fixed by the Board of Directors for the annual meeting shall be a Sunday or other legal holiday in the state where held, such meeting shall be held on the next succeeding business day. If the election of Directors shall not be held on the day designated herein for any annual meeting of the shareholders, or at any adjournment thereof, the Board of Directors shall cause the election to be held at a special meeting of the shareholders as soon thereafter as conveniently may be.

SECTION 2. SPECIAL MEETINGS. Special meetings of the shareholders, for any purpose or purposes, unless otherwise prescribed by statute, may be called by the President or by the Board of Directors or shall be called by the President on behalf of and at the request of the holders of not less than one-third of all of the outstanding shares of the Corporation entitled to vote on the issues to be considered.

SECTION 3. PLACE OF SHAREHOLDERS' MEETING. The Board of Directors or President may designate any place, either within or without the State of Iowa, as the place of meeting of any annual meeting or for any special meeting of the Shareholders. A waiver of notice signed by all shareholders entitled to vote at a meeting may designate any place, either within or without the State of Iowa, as the place for holding of such meeting. If no designation is made, or if a special meeting be otherwise called, the place of meeting shall be the registered office of the Corporation in the State of Iowa.

SECTION 4. NOTICE OF MEETING. Electronic, written or printed notice stating the place, day and hour of the meeting and, in case of a special meeting, the purpose or purposes for which the meeting is called, shall be delivered not less than ten (10) nor more than sixty (60) days before the date of the meeting, either personally, by electronic transmission or by mail, by or at the direction of the President, the Secretary, or the officer or persons calling the meeting, to each shareholder of record entitled to vote at such meeting. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail, addressed to the shareholder at his address as it appears on the stock transfer books of the Corporation, with postage thereon prepaid. Prior to sending by electronic transmission, the shareholder must have first provided the Corporation written approval and authorization to communicate electronically and the electronic address to which the notice is to be sent. If sent electronically, such notice shall be deemed to be delivered when electronically sent to the electronic address as it appears on the stock transfer books of the Corporation.

SECTION 5. CLOSING OF TRANSFER BOOKS OR FIXING OF RECORD DATE. For the purpose of determining shareholders entitled to notice of, or to vote at any special meeting of shareholders or any adjournment thereof, or shareholders entitled to receive payment of any dividend, or in order to make a determination of shareholders for any other proper purpose, the Board of Directors of the Corporation may provide that the stock transfer books shall be closed for a stated period but not to exceed, in any case, sixty (60) days. If the stock transfer books shall be closed for the purpose of determining shareholders entitled to notice of or to vote at a meeting of shareholders, such books shall be closed for at least ten (10) days immediately preceding such meeting. In lieu of closing the stock transfer books, the Board of Directors may fix in advance a date as the record date for any such determination of shareholders, such date in any case to be not more than sixty (60) days and, in case of a meeting of shareholders, not less than ten (10) days prior to the date on which the particular action, requiring such determination of shareholders, is to be taken. If the stock transfer books are not closed and no record date is fixed for the determination of shareholders entitled to notice of or to vote at a meeting of shareholders, or shareholders entitled to receive payment of a dividend, the date on which notice of the meeting is mailed or the date on which the resolution of the Board of Directors declaring such dividend is adopted, as the case may be, shall be the record date for such determination of shareholders. When a determination of shareholders entitled to vote at any meeting of shareholders has been made as provided in this section, such determination shall apply to any adjournment thereof.

SECTION 6. VOTING LISTS. The officer or agent having charge of the stock transfer books for shares of the Corporation shall make, at least ten (10) days before each meeting of shareholders a complete list of the shareholders entitled to vote at such meeting, or any adjournment thereof, arranged in alphabetical order, with the address of and the number of shares held by each, which list, for a period of ten (10) days prior to such meeting, shall be kept on file at the registered office of the Corporation and shall be subject to inspection by any shareholder at any time during usual business hours. Such list shall also be produced and kept open at the time and place of the meeting and shall be subject to the inspection of any shareholder during the whole time of the meeting. The original stock transfer book shall be prima facie evidence as to who are the shareholders entitled to examine such list or transfer books or to vote at any meeting of shareholders.

SECTION 7. QUORUM. A majority of the outstanding shares of the Corporation entitled to vote, represented in person or by proxy, shall constitute a quorum at a meeting of shareholders. If less than a majority of the outstanding shares are represented at a meeting, a majority of the shares so represented may adjourn the meeting from time to time without further notice. At such adjourned meeting at which a quorum shall be present or represented, any business may be transacted which might have been transacted at the meeting as originally notified. The shareholders present at a duly organized meeting may continue to transact business until adjournment, notwithstanding the withdrawal of enough shareholders to leave less than a quorum.

SECTION 8. PROXIES. At all meetings of shareholders, a shareholder may vote by proxy executed in writing by the shareholder or by his duly authorized attorney-in-fact or by electronic transmission if the electronic transmission contains information to validate that the shareholder or the attorney-in-fact for the shareholder authorized the electronic transmission. Such proxy shall be filed with the Secretary of the Corporation before or at the time of the meeting. No proxy shall be valid after eleven months from the date of its execution, unless otherwise provided in the proxy.

SECTION 9. VOTING OF SHARES. Each outstanding share entitled to vote shall be entitled to one vote upon each matter submitted to a vote at a meeting of shareholders. Unless otherwise stated in the Articles or required by The Iowa Business Corporation Act, all matters submitted to a vote, except for elections which shall be decided by a plurality of votes, shall be decided by a majority of the outstanding shares of the Corporation entitled to vote, represented in person or by proxy, at the meeting

SECTION 10. VOTING OF SHARES BY CERTAIN HOLDERS. Shares standing in the name of another corporation may be voted by such officer, agent or proxy as the bylaws of such corporation may prescribe, or, in the absence of such provision, as the Board of Directors of such corporation may determine.

Shares held by an administrator, executor, guardian or conservator may be voted by him, either in person or by proxy, without a transfer of such shares into his name. Shares standing in the name of a trustee may be voted by him, either in person or by proxy, but no Trustee shall be entitled to vote shares held by him without a transfer of such shares into his name.

Shares standing in the name of a receiver may be voted by such receiver, and shares held by or under the control of a receiver may be voted by such receiver without the transfer thereof into his name if authority so to do be contained in an appropriate order of the court by which such receiver was appointed.

A shareholder whose shares are pledged shall be entitled to vote such shares until the shares have been transferred into the name of the pledgee, and thereafter the pledgee shall be entitled to vote the shares so transferred.

Neither treasury shares nor shares held by another corporation, if a majority of the shares entitled to vote for the election of Directors of such other corporation is held by the Corporation, shall be voted at any meeting or counted in determining the total number of outstanding shares at any given time.

SECTION 11. INFORMAL ACTION BY SHAREHOLDERS. Any action required to be taken at a meeting of the shareholders, or any other action which may be taken at a meeting of the shareholders, may be taken without a meeting if a consent in writing, setting forth the action so taken, shall be signed by ninety percent (90%) all of the shareholders entitled to vote with respect to the subject matter thereof.

SECTION 12. VOTING BY BALLOT. Voting by shareholders on any question or in any election may be viva voce unless the presiding officer shall order or any shareholder shall demand that voting be by ballot.

ARTICLE III. BOARD OF DIRECTORS

SECTION 1. GENERAL POWERS. The business and affairs of the Corporation shall be managed by its Board of Directors.

SECTION 2. ELECTION, TENURE AND QUALIFICATIONS. At each annual meeting of the Corporation's shareholders, the holders of the Corporation's Series C Preferred Stock, as a separate voting group, shall elect by a plurality of the votes cast two (2) individuals to serve as Directors, and the holders of the Corporation's Class A Common Stock shall elect by a plurality of the votes cast not less than five (5), nor more than seven (7), other individuals to serve as Directors. Each Director shall hold office until the next annual meeting of shareholders or until his successor shall have been elected and qualified, unless removed at a meeting called expressly for that purpose by a vote of the holders of a majority of the shares then entitled to vote at an election of Directors. Directors need not be residents of the State of Iowa or shareholders of the Corporation. With respect solely to the two directorships that will be filled through an election by the Series C Preferred Stock holders at each annual shareholder meeting, the Board of Directors shall nominate for election only individuals who have been designated by DeWaay Financial Network, L.L.C.

SECTION 3. REGULAR MEETINGS. A regular meeting of the Board of Directors shall be held without other notice than this Bylaw immediately after, and at the same place as, the annual meeting of shareholders. The Board of Directors may provide, by resolution, the time and place, either within or without the State of Iowa, for the holding of additional regular meetings without other notice than such resolution.

SECTION 4. SPECIAL MEETINGS. Special meetings of the Board of Directors may be called by or at the request of the President or any Director. The person or persons authorized to call special meetings of the Board of Directors may fix any place, either within or without the State of Iowa, as the place for holding any special meeting of the Board of Directors called by them.

SECTION 5. NOTICE. Notice of any special meeting shall be given at least two (2) days prior thereto by written notice delivered personally or mailed to each Director at his business address, by telegram, or by electronic transmission. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail, so addressed, with postage thereon prepaid. If notice be given by telegram, such notice shall be deemed to be delivered when the telegram is delivered to the telegraph company. If by electronic transmission, the director must have first provided the Corporation written approval and authorization to communicate electronically and the electronic address to which the notice is to be sent. If sent electronically, such notice shall be deemed to be delivered when electronically sent to the electronic address as provided by the Director. Any Director may waive notice of any meeting. The attendance of a Director at a meeting shall constitute a waiver of notice of such meeting, except where a Director attends a meeting for the express purpose of objecting to the transactions of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board of Directors need be specified in the notice or waiver of notice of such meeting.

SECTION 6. QUORUM. A majority of the number of Directors fixed by Section 2 of this Article III shall constitute a quorum for the transaction of business at any meeting of the Board of Directors, but if less than such majority is present at a meeting, a majority of the Directors present may adjourn the meeting from time to time without further notice.

SECTION 7. MANNER OF ACTING. The act of the majority of the Directors present at a meeting at which a quorum is present shall be the act of the Board of Directors. A Director shall be considered present at a meeting of the Board of Directors or of a committee designated by the Board if he participates in such meeting by conference telephone or other electronic or digital means where all persons participating in the meeting can hear each other.

SECTION 8. VACANCIES. Any vacancy occurring in the Board of Directors and any directorship to be filled by reason of an increase in the number of Directors may be filled by the affirmative vote of a majority of the Directors then in office, even if less than a quorum of the Board of Directors. A Director so elected shall be elected for the unexpired term of his predecessor in office or the full term of such new directorship. If a vacancy exists in either of the two directorships that are required under Section 2 of this Article III to be filled through election by Series C Preferred Stock holders, then the Directors then in office shall elect only an individual designated by DeWaay Financial Network, L.L.C. to fill such vacancy.

SECTION 9. COMPENSATION. By resolution of the Board of Directors, each Director may be paid his expenses, if any, of attendance at each meeting of the Board of Directors, and may be paid a stated salary as Director or a fixed sum for attendance at each meeting of the Board of Directors or both. No such payment shall preclude any Director from serving the Corporation in any other capacity and receiving compensation therefor.

SECTION 10. PRESUMPTION OF ASSENT. A Director of the Corporation who is present at a meeting of the Board of Directors at which action on any corporate matter is taken shall be presumed to have assented to the action taken unless his dissent shall be entered in the minutes of the meeting or unless he shall file his written dissent to such action with the person acting as the secretary of the meeting before the adjournment thereof or shall forward such dissent by registered or certified mail to the secretary of the Corporation immediately after the adjournment of the meeting. Such right to dissent shall not apply to a Director who voted in favor of such action.

SECTION 11. INFORMAL ACTION BY DIRECTORS. Any action required to be taken at a meeting of Directors, or any action which may be taken at a meeting of Directors or of a committee of Directors, may be taken without a meeting if a consent in writing setting forth the action so taken, shall be signed by all of the Directors or all of the members of the committee of Directors, as the case may be, entitled to vote on the matter and delivered to the Corporation. Consent may be granted and delivered by electronic transmission.

SECTION 12. COMMITTEES. The Board of Directors from time to time by Resolution adopted by a majority of the full Board of Directors may appoint from its members a committee or committees, temporary or permanent, and, to the extent permitted by law and these Bylaws, may designate the duties, powers and authorities of such committee.

ARTICLE IV. OFFICERS

SECTION 1. NUMBER AND TITLES. The officers of the Corporation shall be a President, a Chief Executive Officer, a President, a Chief Operating Officer, a Chief Scientific Officer, a Chief Medical Officer, a Secretary, and a Chief Financial Officer, each of whom shall be elected or appointed by the Board of Directors. Such other officers and assistant officers as may be deemed necessary may be elected or appointed by the Board of Directors. Any two or more offices may be held by the same person. It is not necessary for all officer positions be appointed or filled at all times.

SECTION 2. ELECTION AND TERM OF OFFICE. The officers of the Corporation shall be elected or appointed by the Board of Directors annually at the first meeting of the Board of Directors held after each annual

meeting of the shareholders, unless otherwise stated in an employment agreement with the officers. If the election of officers shall not be held at such meeting, such election shall be held as soon thereafter as conveniently may be. Each officer shall hold office until his successor shall have been duly elected and shall have qualified or until his death or until he shall resign or shall have been removed in the manner hereinafter provided.

SECTION 3. REMOVAL. Any officer or agent may be removed by the Board of Directors whenever in its judgment the best interests of the Corporation will be served thereby, but such removal shall be without prejudice to the contract rights, if any, of the person so removed. Election or appointment of an officer or agent shall not of itself create contract rights.

SECTION 4. VACANCIES. A vacancy in any office because of death, resignation, removal, disqualification or otherwise, may be filled by the Board of Directors for the unexpired portion of the term.

SECTION 5. PRESIDENT. The President shall be the principal and paramount officer of the Corporation. Subject to the provisions of these Bylaws and to the direction and control of the Board of Directors, he or she shall have the responsibility for the general management and control of the business and affairs of the Corporation and shall perform all duties and have all powers which are commonly incident to the office of President or which are delegated to him or her by the Board of Directors. Additionally, he or she shall have oversight for the science and research of the Corporation. He or she shall, when present, preside at all meetings of the shareholders and of the Board of Directors. The President shall have power to sign with the Secretary or any other proper officer of the Corporation thereunto authorized by the Board of Directors, all stock certificates, contracts, deeds, mortgages and other instruments of the Corporation which are authorized except in cases where the signing and execution thereof shall be expressly delegated by the Board of Directors or by these Bylaws to some other officer or agent of the Corporation, or shall be required by law to be otherwise signed or executed. He or she shall also have general authority for supervision and direction, superseding that of the Chief Executive Officer and all of the other officers, employees and agents of the Corporation.

SECTION 6. CHIEF EXECUTIVE OFFICER. The Chief Executive Officer shall be the chief operations officer of the Corporation. Subject to the direction and control of the Board of Directors and the President, he or she shall have general responsibility for the management and control of the day-to-day operations and major corporate processes of product and service delivery of and by the Corporation and shall perform all duties and have all powers which are commonly incident to the office of chief executive officer or which are delegated to him or her by the Board of Directors. The Chief Executive Officer shall have power to sign with the Secretary or any other proper officer of the Corporation thereunto authorized by the Board of Directors, all stock certificates, contracts, deeds, mortgages and other instruments of the Corporation which are authorized except in cases where the signing and execution thereof shall be expressly delegated by the Board of Directors or by these Bylaws to some other officer or agent of the Corporation, or shall be required by law to be otherwise signed or executed. He or she shall have general authority for supervision of all of the other officers (other than the President, Chief Science Officer and Chief Medical Officer), employees and agents of the Corporation and in general shall perform all duties incident to the office of Chief Executive Officer and such other duties as may be prescribed by the Board of Directors from time to time. The Chief Executive Officer shall, when present, preside over Board of Director meetings when the President is not present.

SECTION 7. THE CHIEF OPERATING OFFICER. In the absence of the Chief Executive Officer or in the event of his or her death, inability or refusal to act, the Chief Operating Officer shall perform the duties of the Chief Executive Officer, and when so acting, shall have all the powers of and be subject to all the restrictions upon the Chief Executive Officer. The Chief Operating Officer shall perform such other duties as from time to time may be assigned to him by the Chief Executive Officer or by the Board of Directors.

SECTION 8. THE CHIEF SCIENCE OFFICER. The Chief Science Officer subject to the direction and control, and report to, the President and shall be responsible for all scientific affairs of the Corporation. Specifically, he or she shall have the general responsibilities for directing the research and development activities of the Corporation, preparing and publishing in articles and studies in scientific and medical journals, conduct seminar and other public presentations, management of scientific personnel, research facilities and research equipment, review and authorize all regulatory and scientific applications and patent applications, and shall perform such other duties as from time to time may be assigned to by the President or by the Board of Directors

SECTION 9. THE SECRETARY. Secretary shall: (a) keep the minutes of the proceedings of the shareholders and of the Board of Directors in one or more books provided for that purpose; (b) see that all notices are duly given in accordance with the provisions of these Bylaws or as required by law; (c) be custodian of the corporate records and of the seal of the Corporation, if any, and see that the seal of the Corporation, if the Corporation has a seal, is affixed to all documents the execution of which on behalf of the Corporation under its seal is duly authorized; (d) keep a register of the post office address and/or electronic transmission address of each shareholder which shall be furnished to the Secretary by such shareholder; (e) have general charge of the stock transfer books of the Corporation; (f) in general perform all duties incident to the office of Secretary and such other duties as from time to time may be assigned to him by the Chief Executive Officer or President or by the Board of Directors; and (g) sign with the Chief Executive Officer or President or the Chief Operating Officer, certificates for shares of the Corporation.

SECTION 10. THE CHIEF MEDICAL OFFICER. The Chief Medical Officer shall be subject to the direction and control, and report to, the President and shall be responsible for the medical affairs of the Corporation, including clinical trials, directing programs to evaluate drugs, lead drug development committees, oversee governmental and regulatory approval and research programs to support the claims in clinical trials, and shall perform such other duties as from time to time may be assigned to by the President or by the Board of Directors.

SECTION 11. THE CHIEF FINANCIAL OFFICER. If required by the Board of Directors, the Chief Financial Officer shall give a bond for the faithful discharge of his duties in such sum and with such surety or sureties as the Board of Directors shall determine. He shall: (a) have charge and custody of and be responsible for all funds and securities of the Corporation; receive and give receipts for moneys due and payable to the Corporation from any source whatsoever, and deposit all such moneys in the name of the Corporation in such banks, trust companies or other depositories as shall be selected in accordance with the provisions of Article VI of these Bylaws; and (b) in general perform all of the duties incident to the office of Chief Financial Officer and such other duties as from time to time may be assigned to him by the Chief Executive Officer or by the Board of Directors.

SECTION 12. ASSISTANT SECRETARIES. There may be assistant secretaries, when authorized by the Board of Directors. The assistant secretaries shall respectively, if required by the Board of Directors, give bonds for the faithful discharge of their duties in such sums and with such sums and with such sureties as the Board of Directors shall determine and may sign with the Chief Executive Officer or Chief Operating Officer certificates for shares of the Corporation. The assistant secretaries, in general, shall perform such duties as shall be assigned to them by the Secretary or Chief Financial Officer, respectively, or by the Chief Executive Officer or the Board of Directors.

SECTION 13. OTHER ASSISTANTS AND ACTING OFFICERS. The Board of Directors shall have the power to appoint any person to act as assistant to any officer, or to perform the duties of such officer whenever for any reason it is impracticable for such officer to act personally, and such assistant or acting officer so appointed by the Board of Directors shall have the power to perform all the duties of the office to which he is so appointed to be assistant, or as to which he is so appointed to act, except as such power may be otherwise defined or restricted by the Board of Directors.

SECTION 14. SALARIES. The salaries of the officers shall be fixed from time to time by the Board of Directors and no officer shall be prevented from receiving such salary by reason of the fact that he is also a Director of the Corporation.

SECTION 15. EMPLOYMENT AGREEMENT. Notwithstanding the provisions of this Article, if an officer has an employment agreement, the employment agreement shall overrule any conflicting or contrary provisions of this Article and shall govern terms and conditions of employment of the officer.

ARTICLE V. EXECUTIVE COMMITTEE

SECTION 1. APPOINTMENT. The Board of Directors by resolution adopted by a majority of the full Board, may designate one or more of its members to constitute an executive committee, except where a committee of two or more is required by Iowa law governing corporations. The designation of such committee and the delegation thereto of authority shall not operate to relieve the Board of Directors, or any member thereof, of any responsibility imposed by law.

SECTION 2. AUTHORITY. The executive committee, when the Board of Directors is not in session, shall have and may exercise all of the authority of the Board of Directors except to the extent, if any, that such authority shall be limited by the resolution appointing the executive committee and except also that the executive committee shall not have the authority of the Board of Directors in reference to amending the Articles of Incorporation, adopting a plan of merger or consolidation, authorize or approve distributions unless pursuant to a formula or method prescribed by the Board of Directors, recommending to the shareholders the sale, lease or other disposition of all or substantially all of the property and assets of the Corporation otherwise than in the usual and regular course of its business, recommending to the shareholders a voluntary dissolution of the Corporation or a revocation thereof, fill vacancies on the Board of Directors, or amending the Bylaws of the Corporation.

SECTION 3. TENURE AND QUALIFICATIONS. Subject to the provisions of Section 8 of this Article, each member of the executive committee shall hold office until the next regular annual meeting of the Board of Directors following his designation.

SECTION 4. MEETINGS. Regular meetings of the executive committee may be held without notice at such times and places as the executive committee may fix from time to time by resolution. Special meetings of the executive committee may be called by any member thereof upon not less than two (2) days' notice stating the place, date and hour of the meeting, which notice may be written, oral, or by electronic transmission and if mailed, shall be deemed to be delivered when deposited in the United States mail addressed to the member of the executive committee at his business address or if by electronic transmission, shall be deemed to be delivered when sent to the member at the electronic address on the corporate records books. Any member of the executive committee may waive notice of any meeting and no notice of any meeting need be given to any member thereof who attends in person. The notice of a meeting of the executive committee need not state the business proposed to be transacted at the meeting.

SECTION 5. QUORUM. A majority of the members of the executive committee shall constitute a quorum for the transaction of business at any meeting thereof and action of the executive committee must be authorized by the affirmative vote of a majority of the members present at a meeting at which a quorum is present.

SECTION 6. ACTION WITHOUT A MEETING. Any action required or permitted to be taken by the executive committee at a meeting may be taken without a meeting if a consent in writing or by electronic means, setting forth the action so taken, shall be signed and delivered by all of the members of the executive committee to the Board of Directors.

SECTION 7. VACANCIES. Any vacancy in the executive committee may be filled by a resolution adopted by a majority of the full Board of Directors.

SECTION 8. RESIGNATIONS AND REMOVAL. Any member of the executive committee may be removed at any time with or without cause by resolution adopted by a majority of the full Board of Directors. Any member of the executive committee may resign from the executive committee at any time by giving written or electronic notice to the president or secretary of the Corporation, and unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

SECTION 9. PROCEDURE. The executive committee shall elect a presiding officer from its members and may fix its own rules of procedure which shall not be inconsistent with these Bylaws. It shall keep regular minutes of its proceedings and report the same to the Board of Directors for its information at the meeting thereof held next after the proceedings shall have been taken.

ARTICLE VI. CONTRACTS, LOANS, CHECKS AND DEPOSITS

SECTION 1. CONTRACTS. The Board of Directors may authorize any officer or officers, agent or agents, to enter into any contract or execute and deliver any instrument in the name of and on behalf of the Corporation, and such authority may be general or confined to specific instances. All mortgages or deeds made by the Corporation shall be executed by the president and one other member of the Board of Directors.

SECTION 2. LOANS. No loans shall be contracted on behalf of the Corporation and no evidences of indebtedness shall be issued in its name unless authorized by a resolution of the Board of Directors. Such authority may be general or confined to specific instances.

SECTION 3. CHECKS, DRAFTS, ETC. All checks, drafts or other orders for the payment of money, notes or other evidences of indebtedness issued in the name of the Corporation, shall be signed by such officer or officers, agent or agents of the Corporation and in such manner as shall from time to time be determined by resolution of the Board of Directors.

SECTION 4. DEPOSITS. All funds of the Corporation not otherwise employed shall be deposited from time to time to the credit of the Corporation in such banks, trust companies or other depositories as the Board of Directors may select.

ARTICLE VII. CERTIFICATES FOR SHARES AND THEIR TRANSFER

SECTION 1. CERTIFICATES FOR SHARES. Certificates representing shares of the Corporation shall be in such form as shall be determined by the Board of Directors. Such certificates shall be signed by the President or Chief Executive Officer and by the secretary or an assistant secretary and if the Corporation has a corporate seal, sealed with the corporate seal or a facsimile thereof. The signatures of such officers upon a certificate may be facsimiles. Each certificate for shares shall be consecutively numbered or otherwise identified. The name and address of the person to whom the shares and date of issue, shall be entered on the stock transfer books of the Corporation. All certificates surrendered to the Corporation for transfer shall be voided and no new certificate shall be issued until the former certificate for a like number of shares shall have been surrendered and voided, except that in case of a lost, destroyed or mutilated certificate a new one may be issued therefor upon such terms and indemnity to the Corporation as the Board of Directors may prescribe.

SECTION 2. FRACTIONAL SHARES. No fractional shares of the Corporation's capital stock of any class shall be issued. The Board of Directors shall, in its discretion, take such action as under the circumstances may reasonably insure equitable treatment of persons entitled to fractional interests, including but not limited to, the issuance of scrip (disenfranchised as to voting or dividends) in lieu of said fractional interests with subsequent issuance of certificates for full shares in exchange for the requisite aggregate amount of such scrip, or by cash settlement through sale or purchase options extended to fractional interest entitlees which will operate to allow the issuance of full shares or payment in cash for such fractional interests. Computations in this regard may be rounded to the nearest hundredth share or cent, as the case may be.

SECTION 3. TRANSFER OF SHARES. Transfer of shares of the Corporation shall be made only on the stock transfer books of the Corporation by the holder of record thereof or by his legal representative, who shall furnish proper evidence of authority to transfer, or by his attorney thereunto authorized by power of attorney duly executed and filed with the secretary of the Corporation, and on surrender for cancellation of the certificate for such shares. The person in whose name shares stand on the books of the Corporation shall be deemed by the Corporation to be the owner thereof for all purposes.

SECTION 4. TRANSFER RESTRICTIONS. No shares of common stock or preferred stock of any class or series may be transferred for value to any person who is not already a stockholder unless such shares (the "Offered Shares") shall have been first offered to the Corporation or other shareholders in compliance with the following terms and conditions. Any transfer of shares for no consideration is not subject to the terms and conditions set forth in this Section 4 of Article VII. Any transfer for value of shares of common stock and/or preferred stock of any class or series which does not comply with the terms and conditions of this Section 4 shall not be recognized on the Corporation's record books.

(a) If, at the time of the proposed transfer, the Corporation is a party to a buy-sell agreement with any shareholder that governs the transfer of the Offered Shares, then the terms and price set by such agreement shall preempt those set forth below.

(b) If a buy-sell agreement in the nature of that described in (a) does not exist at the time of proposed transfer, then the terms shall be as set forth in (1) and (2) below:

(1) *First*, the transferring shareholder shall provide to the Corporation notice of the intended transfer, including the purchase price, the name of the intended transferee and the anticipated closing date of the transfer, which notice must be provided at least sixty (60) days before said closing date. *Second*, the Corporation shall have an option to purchase all, but not less than all, of the Offered Shares for the price designated in (2) below the Offered Shares. The Corporation's purchase option shall expire at 5:00 P.M. CST on the thirtieth (30th) calendar day after the date on which the Corporation first receives the requisite notice, unless the Corporation exercises its purchase option before such time and date. *Third*, if the Corporation fails to exercise its purchase option, then the Corporation shall forward the requisite transfer notice to the remaining shareholders, and the remaining shareholders shall have the following option to purchase the Offered Shares. Each shareholder shall have a primary option to purchase, for the purchase price designated in (2) below, that proportion of the Offered Shares which the shares held by him bears to all outstanding shares held by shareholders electing to so purchase. If any of the Offered Shares remain after the exercise (or lapse) of all of the remaining shareholders' primary options, then each shareholder who elected to purchase his maximum pro rata amount of the Offered Shares shall have a secondary option to purchase the remaining Offered Shares; provided that the Board of Directors shall have the reasonable discretion to resolve any conflict among the secondary option holders with regard to the number of Offered Shares to be purchased by each secondary option holder. *Fourth*, if the Corporation and/or the remaining shareholders fail to timely exercise their respective options to purchase, in the aggregate, all of the Offered Shares, then said purchase options shall be void and of no effect, and the intended transfer of the Offered Shares shall be permitted to occur, subject to all other terms and conditions set forth in the Corporation's Articles of Incorporation and these by-laws.

The shareholders' primary and secondary options shall lapse, if not earlier exercised, on 5:00 P.M. CST of the fifteenth (15th) calendar day following the later of the date on which the Corporation forwarded the requisite notice to the shareholders and the date on which the Corporation's option period expired. The Corporation shall exercise its option by giving notice to the transferring shareholder of its intention to purchase the Offered Shares. Each of the shareholders' purchase options shall be exercised by the giving of written notice of the intention to exercise such option to the Corporation and the transferring shareholder. The closing of any purchase of the Offered Shares pursuant to the exercise of a purchase option hereunder shall take place no later than fifteen (15) days after the date on which the option is exercised, and payment of the purchase price for the Offered Shares shall be made in full at the time of closing.

(2) The purchase price for any purchase of Offered Shares pursuant to an exercise of the forgoing purchase options, shall be the market value of the Offered Shares. If the proposed transfer is an arms-length sale, then the purchase price agreed upon in said proposed transfer shall constitute the shares' market value for purposes of the options of the Corporation and other shareholders under this Section 4. If a dispute arises as to the market value of said stock, then in that event the market value shall be determined as follows:

The selling shareholder shall pick a referee and the Corporation or purchasing shareholder, as the case may be, shall pick a referee and the two referees will select an umpire. Their majority decision shall be binding on the transferring shareholder, the Corporation and the other shareholders. The above mentioned offering periods shall not begin until a decision has been rendered by said referees and umpire. The stock transfer records of the Corporation shall be open for inspection by the referees and the umpire and fees of the referees shall be paid by the particular selector of each while the fees of the umpire shall be split equally between the two parties to the dispute.

SECTION 5. LEGEND. All common or preferred stock certificates, warrants, options, preemptive rights, notices or other evidences of equity interests in the Corporation shall bear the legend following:

"Transfer of the shares represented by this certificate is restricted by Article VII of the corporation's Bylaws and may be effected only by compliance therewith."

ARTICLE VIII. DIVIDENDS

The Board of Directors may, from time to time, declare and the Corporation may pay dividends on its outstanding shares in the manner, and upon the terms and conditions provided by law and its Articles of Incorporation.

ARTICLE IX. VOTING OF SHARES OWNED BY CORPORATION

Subject always to the specific directions of the Board of Directors, any share or shares of stock issued by any other corporation and owned or controlled by the Corporation may be voted at any shareholders' meeting of such other corporation by the President of the Corporation if he be present, or in his absence by the Chief Executive Officer of the Corporation who may be present. Whenever, in the judgment of the President, or in his absence, in the judgment of the Chief Executive Officer, it is desirable for the Corporation to execute a proxy or give a shareholders' consent in respect to any share or shares of stock issued by any other corporation and owned by the Corporation, such proxy or consent shall be executed in the name of the Corporation by the President or the Chief Executive Officer of the Corporation and shall be attested by the secretary or an assistant secretary of the Corporation without necessity of any authorization by the Board of Directors. Any person or persons designated in the manner above stated as the proxy or proxies of the Corporation shall have full right, power and authority to vote the share or shares of stock issued by such other corporation and owned by the Corporation the same as such share or shares might be voted by the Corporation.

ARTICLE X. INDEMNIFICATION AND LIABILITY OF DIRECTORS, OFFICERS AND EMPLOYEES

SECTION 1. SCOPE OF INDEMNIFICATION. Any person who, by reason of the fact that he is or was a director, officer or employee of the Corporation or is or was serving at the request of the Corporation as a director, officer or employee of another corporation, partnership, joint venture, trust, or other enterprise, is or was a party, or is threatened to be made a party, to any threatened, pending, or completed action, suit, or proceeding, whether civil, criminal, administrative, or investigative, shall be indemnified by the Corporation; provided he acted in good faith and in a manner he believed to be in or not opposed to the best interest of the Corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The indemnification shall be provided against all expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with the action, suit or proceeding; provided, however, that with respect to an action or suit by or in the right of the Corporation, the indemnification shall be only against expenses, including attorneys' fees, and no indemnification shall be made in respect of any claim, issue, or matter as to which the person was adjudged liable for negligence or misconduct in the performance of his duty to the Corporation, unless the court in which the action or suit was brought determines upon application that, despite the adjudication of liability and in the view of all the circumstances of the case, the person is fairly and reasonably entitled to indemnity for such expense as the court shall deem proper.

The indemnification provisions provided by this Section shall extend to any agents (other than directors, officers or employees) of the Corporation as such indemnification may be specifically authorized by resolution of the Board of Directors of the Corporation.

SECTION 2. DETERMINATION OF INDEMNIFICATION. To the extent that a director, officer or employee of the Corporation has been successful on the merits or otherwise in defense of any action, suit, or proceeding or of any claim, issue or matter herein, he shall be indemnified against expenses, including attorneys' fees, actually and reasonably incurred by him in connection with the action, suit, or proceeding. Any other indemnification hereunder, -unless ordered by a court, shall be made by the Corporation only as authorized in the specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances because he has met the applicable standard of conduct set forth herein. The determination shall be made by the Board of

Directors by a majority vote of a quorum consisting of directors who were not parties to the action, suit or proceeding, or, if a quorum is not obtainable or, even if obtainable, a quorum of disinterested directors if so directed by independent legal counsel in a written opinion. The termination of any action, suit, or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent shall not of itself create a presumption that (i) the person did not act in good faith and in a manner which he reasonably believed to be in, or not opposed to, the best interests of the Corporation, or (ii) with respect to any criminal action or proceeding, that he had reasonable cause to believe that his conduct was unlawful.

SECTION 3. PAYMENT OF EXPENSES. Unless otherwise disallowed by the provisions of Section 1, expenses, including attorneys' fees, incurred in defending a civil, criminal or administrative action, suit, or proceeding shall be paid by the Corporation in advance of the final disposition of the action, suit, or proceeding as authorized by a disinterested majority of the Board of Directors of the Corporation in the specific case, upon receipt of an undertaking by or on behalf of the director, officer, or employee to repay such amount unless it shall ultimately be determined that he is entitled to be indemnified by the Corporation as authorized herein.

SECTION 4. NON-EXCLUSIVE. The indemnification provided shall not be determined exclusive of any other rights to which those seeking indemnification may be entitled under any applicable statute as amended from time to time, against by-law, agreement, vote of shareholders or disinterested directors, or otherwise, both as to action in their official capacity and as to action in another capacity while holding office. The indemnification shall continue as to a person who has ceased to be a director, officer, or employee and shall inure to the benefit of his heirs, executors, and administrators.

SECTION 5. INSURANCE. The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer or employee of the Corporation or is or was serving at the request of the Corporation as a director, officer or employee of another Corporation, partnership, joint venture, trust, or other enterprise against any liability asserted against him and incurred by him in any such capacity or arising out of his status as such, whether or not the Corporation would have the power to indemnify him against such liability under the provisions herein.

SECTION 6. INTENT. It is the express intention of this Article that the indemnification protection afforded the directors, officers and employees of the Corporation be interpreted to the broadest extent allowed by Section 490.850 through 490.858, inclusive, as amended, of the Code of Iowa and as otherwise allowed by law, and that this indemnification shall apply to all prior acts of the directors, officers and employees of the Corporation and also to all future acts as well.

ARTICLE XI. WAIVER OF NOTICE

Whenever any notice is required to be given to any shareholder or director of the Corporation under the provisions of these Bylaws or under the provisions of the Articles of Incorporation or under the provisions of the Iowa Business Corporation Act, a waiver thereof in writing signed by the person or persons entitled to such notice, whether before or after the time stated therein, shall be deemed equivalent to the giving of such notice.

ARTICLE XII. FISCAL YEAR

The fiscal year of the Corporation shall begin on the first day of January in each year and end on the last day of December in each year.

ARTICLE XIII. AMENDMENTS

These Bylaws may be altered, amended or repealed and new Bylaws may be adopted by the Board of Directors at any regular or special meeting; provided that any such amendments which would change, under Article III, section 2, the minimum or maximum permitted number of Directors on the Board of Directors shall be made only by majority vote of the shareholders.

Dated this 14th day of July, 2010.

/s/ Christal Mickle

Christal Mickle, Secretary

AMENDMENT TO
THE BYLAWS OF
KEMPHARM, INC.
(A DELAWARE CORPORATION)

THIS AMENDMENT (this "***Amendment***") to the Bylaws (the "***Bylaws***") of KemPharm, Inc., a Delaware corporation, is adopted and approved as of November 7, 2014.

The Bylaws are hereby amended as follows:

1. The final paragraph of Section 3.2 of Article 3 of the Bylaws is hereby deleted and replaced, in its entirety, by the following:

> "Directors need not be stockholders of the Corporation. For purposes of these Bylaws, "Voting Agreement" means that certain Voting Agreement dated as of June 2, 2014, by and between the Corporation and certain of its stockholders, as the same may be amended and restated from time to time, and "Affiliate" and "Deerfield Investor" shall each have the definition provided to it under the Voting Agreement."

All provisions of the Bylaws not hereby amended shall remain in full force and effect. This Amendment and the Bylaws shall be read and construed together as a single instrument. To the extent of any inconsistency between the terms contained in the Bylaws and this Amendment, the terms of this Amendment shall control. Any reference to any document or agreement to the Bylaws shall include this Amendment and shall refer to the Bylaws as amended by this Amendment.

EXHIBIT 3.5

AMENDED AND RESTATED BYLAWS

OF

KEMPHARM, INC.
(A DELAWARE CORPORATION)

KEMPHARM, INC.
AMENDED AND RESTATED
BYLAWS

ARTICLE I

OFFICES

Section 1. Registered Office. The registered office shall be established and maintained at the office of The Corporation Trust Company, in the City of Wilmington, in the County of New Castle, in the State of Delaware, and said corporation, or other such person or entity as the Board of Directors may from time to time designate, shall be the registered agent of the corporation.

Section 2. Other Offices. The corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II

CORPORATE SEAL

Section 3. Corporate Seal. The Board of Directors may adopt a corporate seal. If adopted, the corporate seal shall consist of a die bearing the name of the corporation and the inscription, "Corporate Seal-Delaware." Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE III

STOCKHOLDERS' MEETINGS

Section 4. Place Of Meetings. Meetings of the stockholders of the corporation may be held at such place, either within or without the State of Delaware, as may be determined from time to time by the Board of Directors. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as provided under the Delaware General Corporation Law (the "***DGCL***").

Section 5. Annual Meetings.

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may properly come before it, shall be held on such date and at such time as may be designated from time to time by the Board of Directors. Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the corporation's notice of meeting of stockholders (with respect to

business other than nominations); (ii) brought specifically by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who was a stockholder of record at the time of giving the stockholder's notice provided for in Section 5(b) below, who is entitled to vote at the meeting and who complied with the notice procedures set forth in this Section 5. For the avoidance of doubt, clause (iii) above shall be the exclusive means for a stockholder to make nominations and submit other business (other than matters properly included in the corporation's notice of meeting of stockholders and proxy statement under Rule 14a-8 under the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (the "***1934 Act***")) before an annual meeting of stockholders.

(b) At an annual meeting of the stockholders, only such business shall be conducted as is a proper matter for stockholder action under Delaware law and as shall have been properly brought before the meeting.

(1) For nominations for the election to the Board of Directors to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a) of these Bylaws, the stockholder must deliver written notice to the Secretary at the principal executive offices of the corporation on a timely basis as set forth in Section 5(b)(3) and must update and supplement such written notice on a timely basis as set forth in Section 5(c). Such stockholder's notice shall set forth: (A) as to each nominee such stockholder proposes to nominate at the meeting: (1) the name, age, business address and residence address of such nominee, (2) the principal occupation or employment of such nominee, (3) the class and number of shares of each class of capital stock of the corporation which are owned of record and beneficially by such nominee, (4) the date or dates on which such shares were acquired and the investment intent of such acquisition and (5) such other information concerning such nominee as would be required to be disclosed in a proxy statement soliciting proxies for the election of such nominee as a director in an election contest (even if an election contest is not involved), or that is otherwise required to be disclosed pursuant to Section 14 of the 1934 Act and the rules and regulations promulgated thereunder (including such person's written consent to being named as a nominee and to serving as a director if elected); and (B) the information required by Section 5(b)(4). The corporation may require any proposed nominee to furnish such other information as it may reasonably require to determine the eligibility of such proposed nominee to serve as an independent director of the corporation or that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such proposed nominee.

(2) Other than proposals sought to be included in the corporation's proxy materials pursuant to Rule 14a-8 under the 1934 Act, for business other than nominations for the election to the Board of Directors to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a) of these Bylaws, the stockholder must deliver written notice to the Secretary at the principal executive offices of the corporation on a timely basis as set forth in Section 5(b)(3), and must update and supplement such written notice on a timely basis as set forth in Section 5(c). Such stockholder's notice shall set forth: (A) as to each matter such stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting, and any material interest (including any anticipated benefit of such business to any Proponent (as defined below) other than solely as a result of its ownership of the corporation's capital stock, that is material to any Proponent individually, or to the Proponents in the aggregate) in such business of any Proponent; and (B) the information required by Section 5(b)(4).

(3) To be timely, the written notice required by Section 5(b)(1) or 5(b)(2) must be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting; *provided*, *however*, that, subject to the last sentence of this Section 5(b)(3), in the event that the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be so received not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made. In no event shall an adjournment or a postponement of an annual meeting for which notice has been given, or the public announcement thereof has been made, commence a new time period for the giving of a stockholder's notice as described above.

(4) The written notice required by Section 5(b)(1) or 5(b)(2) shall also set forth, as of the date of the notice and as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (each, a "***Proponent***" and collectively, the "***Proponents***"): (A) the name and address of each Proponent, as they appear on the corporation's books; (B) the class, series and number of shares of the corporation that are owned beneficially and of record by each Proponent; (C) a description of any agreement, arrangement or understanding (whether oral or in writing) with respect to such nomination or proposal between or among any Proponent and any of its affiliates or associates, and any others (including their names) acting in concert, or otherwise under the agreement, arrangement or understanding, with any of the foregoing; (D) a representation that the Proponents are holders of record or beneficial owners, as the case may be, of shares of the corporation entitled to vote at the meeting and intend to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice (with respect to a notice under Section 5(b)(1)) or to propose the business that is specified in the notice (with respect to a notice under Section 5(b)(2)); (E) a representation as to whether the Proponents intend to deliver a proxy statement and form of proxy to holders of a sufficient number of holders of the corporation's voting shares to elect such nominee or nominees (with respect to a notice under Section 5(b)(1)) or to carry such proposal (with respect to a notice under Section 5(b)(2)); (F) to the extent known by any Proponent, the name and address of any other stockholder supporting the proposal on the date of such stockholder's notice; and (G) a description of all Derivative Transactions (as defined below) by each Proponent during the previous twelve (12) month period, including the date of the transactions and the class, series and number of securities involved in, and the material economic terms of, such Derivative Transactions.

For purposes of Sections 5 and 6, a "***Derivative Transaction***" means any agreement, arrangement, interest or understanding entered into by, or on behalf or for the benefit of, any Proponent or any of its affiliates or associates, whether record or beneficial:

(w) the value of which is derived in whole or in part from the value of any class or series of shares or other securities of the corporation,

(x) which otherwise provides any direct or indirect opportunity to gain or share in any gain derived from a change in the value of securities of the corporation,

(y) the effect or intent of which is to mitigate loss, manage risk or benefit of security value or price changes, or

(z) which provides the right to vote or increase or decrease the voting power of, such Proponent, or any of its affiliates or associates, with respect to any securities of the corporation,

which agreement, arrangement, interest or understanding may include, without limitation, any option, warrant, debt position, note, bond, convertible security, swap, stock appreciation right, short position, profit interest, hedge, right to dividends, voting agreement, performance-related fee or arrangement to borrow or lend shares (whether or not subject to payment, settlement, exercise or conversion in any such class or series), and any proportionate interest of such Proponent in the securities of the corporation held by any general or limited partnership, or any limited liability company, of which such Proponent is, directly or indirectly, a general partner or managing member.

(c) A stockholder providing written notice required by Section 5(b)(1) or (2) shall update and supplement such notice in writing, if necessary, so that the information provided or required to be provided in such notice is true and correct in all material respects as of (i) the record date for the meeting and (ii) the date that is five (5) business days prior to the meeting and, in the event of any adjournment or postponement thereof, five (5) business days prior to such adjourned or postponed meeting. In the case of an update and supplement pursuant to clause (i) of this Section 5(c), such update and supplement shall be received by the Secretary at the principal executive offices of the corporation not later than five (5) business days after the record date for the meeting. In the case of an update and supplement pursuant to clause (ii) of this Section 5(c), such update and supplement shall be received by the Secretary at the principal executive offices of the corporation not later than two (2) business days prior to the date for the meeting, and, in the event of any adjournment or postponement thereof, two (2) business days prior to such adjourned or postponed meeting.

(d) Notwithstanding anything in Section 5(b)(3) to the contrary, in the event that the number of directors in an Expiring Class is increased and there is no public announcement of the appointment of a director to such class, or, if no appointment was made, of the vacancy in such class, made by the corporation at least ten (10) days before the last day a stockholder may deliver a notice of nomination in accordance with Section 5(b)(3), a stockholder's notice required by this Section 5 and which complies with the requirements in Section 5(b)(1), other than the timing requirements in Section 5(b)(3), shall also be considered timely, but only with respect to nominees for any new positions in such Expiring Class created by such increase, if it shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the corporation. For purposes of this section, an "***Expiring Class***" shall mean a class of directors whose term shall expire at the next annual meeting of stockholders.

(e) A person shall not be eligible for election or re-election as a director unless the person is nominated either in accordance with clause (ii) of Section 5(a), or in accordance with clause (iii) of Section 5(a). Except as otherwise required by law, the chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, or the Proponent does not act in accordance with the representations in Sections 5(b)(4)(D) and 5(b)(4)(E), to declare that such proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded, notwithstanding that proxies in respect of such nominations or such business may have been solicited or received.

(f) Notwithstanding the foregoing provisions of this Section 5, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act; *provided*, *however*, that any references in these Bylaws to the 1934 Act or the rules and regulations thereunder are not intended to and shall not limit the requirements applicable to proposals and/or nominations to be considered pursuant to Section 5(a)(iii) of these Bylaws.

(g) For purposes of Sections 5 and 6,

(1) ***"public announcement"*** shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act; and

(2) ***"affiliates"*** and ***"associates"*** shall have the meanings set forth in Rule 405 under the Securities Act of 1933, as amended (the "***1933 Act***").

Section 6. Special Meetings.

(a) Special meetings of the stockholders of the corporation may be called, for any purpose as is a proper matter for stockholder action under Delaware law, by (i) the Chairman of the Board of Directors, (ii) the Chief Executive Officer, or (iii) the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board of Directors for adoption).

(b) The Board of Directors shall determine the time and place, if any, of such special meeting. Upon determination of the time and place, if any, of the meeting, the Secretary shall cause a notice of meeting to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7 of these Bylaws. No business may be transacted at such special meeting otherwise than specified in the notice of meeting.

(c) Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the corporation who is a stockholder of record at the time of giving notice provided for in this paragraph, who shall be entitled to vote at the meeting and who delivers written notice to the Secretary of the corporation setting forth the information required by Section 5(b)(1). In the event the corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder of record may nominate a person or persons (as the case may be), for election to such position(s) as specified in the corporation's notice of meeting, if written notice setting forth the information required by Section 5(b)(1) of these Bylaws shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the later of the ninetieth (90th) day prior to such meeting or the tenth (10th) day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. The stockholder shall also update and supplement such information as required under Section 5(c). In no event shall an adjournment or a postponement of a special meeting for which notice has been given, or the public announcement thereof has been made, commence a new time period for the giving of a stockholder's notice as described above.

(d) Notwithstanding the foregoing provisions of this Section 6, a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder with respect to matters set forth in this Section 6. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act; *provided*, *however*, that any references in these Bylaws to the 1934 Act or the rules and regulations thereunder are not intended to and shall not limit the requirements applicable to nominations for the election to the Board of Directors to be considered pursuant to Section 6(c) of these Bylaws.

Section 7. Notice Of Meetings. Except as otherwise provided by law, notice, given in writing or by electronic transmission, of each meeting of stockholders shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, if any, date and hour, in the case of special meetings, the purpose or purposes of the meeting, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at any such meeting. If mailed, notice is deemed given when deposited in the U.S. mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. Notice of the time, place, if any, and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof, or by electronic transmission by such person, either before or after such meeting, and will be waived by any stockholder by his, her or its attendance thereat in person, by remote communication, if applicable, or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

Section 8. Quorum. At all meetings of stockholders, except where otherwise provided by statute or by the Certificate of Incorporation, or by these Bylaws, the presence, in person, by remote communication, if applicable, or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairman of the meeting or by vote of the holders of a majority of the shares represented thereat, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by statute or by applicable stock exchange rules, or by the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of the majority of shares present in person, by remote communication, if applicable, or represented by proxy at the meeting and entitled to vote generally on the subject matter shall be the act of the stockholders. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by proxy at the meeting and entitled to vote generally on the election of directors. Where a separate vote by a class or classes or series is required, except where otherwise provided by the statute or by the Certificate of Incorporation or these Bylaws, a majority of the outstanding shares of such class or classes or series, present in person, by remote communication, if applicable, or represented by proxy duly authorized, shall constitute a quorum entitled to take action with respect to that vote on that matter. Except where otherwise provided by statute or by the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of shares of such class or classes or series present in person, by remote communication, if applicable, or represented by proxy at the meeting shall be the act of such class or classes or series.

Section 9. Adjournment And Notice Of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairman of the meeting or by the vote of a majority of the shares present in person, by remote communication, if applicable, or represented by proxy at the meeting. When a meeting is adjourned to another time or place, if any, notice need not be given of the adjourned meeting if the time and place, if any, thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 10. Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the corporation on the record date, as provided in Section 12 of these Bylaws, shall be entitled to vote at any meeting of stockholders. Every person entitled to vote shall have the right to do so either in person, by remote communication, if applicable, or by an agent or agents authorized by a proxy granted in

accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy shall be voted after three (3) years from its date of creation unless the proxy provides for a longer period.

Section 11. Joint Owners Of Stock. If shares or other securities having voting power stand of record in the names of two (2) or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two (2) or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect: (a) if only one (1) votes, his or her act binds all; (b) if more than one (1) votes, the act of the majority so voting binds all; (c) if more than one (1) votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided in the DGCL, Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest.

Section 12. List Of Stockholders. The Secretary shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b) during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. The list shall be open to examination of any stockholder during the time of the meeting as provided by law.

Section 13. Action Without Meeting. No action shall be taken by the stockholders except at an annual or special meeting of stockholders called in accordance with these Bylaws, and no action shall be taken by the stockholders by written consent or by electronic transmission.

Section 14. Organization.

(a) At every meeting of stockholders, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the President, or, if the President is absent, a chairman of the meeting chosen by a majority in interest of the stockholders entitled to vote, present in person or by proxy, shall act as chairman. The Secretary, or, in his or her absence, an Assistant Secretary directed to do so by the President, shall act as secretary of the meeting.

(b) The Board of Directors of the corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are

necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters which are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

ARTICLE IV

DIRECTORS

Section 15. Number And Term Of Office. The authorized number of directors of the corporation shall be fixed in accordance with the Certificate of Incorporation. Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient at a special meeting of the stockholders called for that purpose in the manner provided in these Bylaws.

Section 16. Powers. The powers of the corporation shall be exercised, its business conducted and its property controlled by the Board of Directors, except as may be otherwise provided by statute or by the Certificate of Incorporation.

Section 17. Classes of Directors. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, immediately following the closing of the initial public offering pursuant to an effective registration statement under the 1933 Act covering the offer and sale of Common Stock to the public (the "***Initial Public Offering***"), the directors shall be divided into three classes designated as Class I, Class II and Class III, respectively. The Board of Directors is authorized to assign members of the Board of Directors already in office to such classes at the time the classification becomes effective. At the first annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. At each succeeding annual meeting of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting.

Notwithstanding the foregoing provisions of this Section 17, each director shall serve until his or her successor is duly elected and qualified or until his or her earlier death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

Section 18. Vacancies. Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, or by a sole remaining director, and not by the stockholders, *provided*, *however*, that whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Bylaw in the case of the death, removal or resignation of any director.

Section 19. Resignation. Any director may resign at any time by delivering his or her notice in writing or by electronic transmission to the Secretary, such resignation to specify whether it will be effective at a particular time. If no such specification is made, it shall be deemed effective at the time of delivery to the Secretary. When one or more directors shall resign from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each Director so chosen shall hold office for the unexpired portion of the term of the Director whose place shall be vacated and until his or her successor shall have been duly elected and qualified.

Section 20. Removal.

(a) Subject to the rights of holders of any series of Preferred Stock to elect additional directors under specified circumstances, neither the Board of Directors nor any individual director may be removed without cause.

(b) Subject to any limitation imposed by law, any individual director or directors may be removed with cause by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all then outstanding shares of capital stock of the corporation entitled to vote generally at an election of directors.

Section 21. Meetings.

(a) Regular Meetings. Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware which has been designated by the Board of Directors and publicized among all directors, either orally or in writing, by telephone, including a voice-messaging system or other system designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means. No further notice shall be required for regular meetings of the Board of Directors.

(b) Special Meetings. Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chairman of the Board, the Chief Executive Officer or a majority of the authorized number of directors.

(c) Meetings by Electronic Communications Equipment. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

(d) Notice of Special Meetings. Notice of the time and place of all special meetings of the Board of Directors shall be orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least twenty-four (24) hours before the date and time of the meeting. If notice is sent by US mail, it shall be sent by first class mail, charges prepaid, at least three (3) days before the date of the meeting. Notice of any meeting may be waived in writing, or by electronic transmission, at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

(e) Waiver of Notice. The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though it had been transacted at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice shall sign a written waiver of notice or shall waive notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting.

Section 22. Quorum And Voting.

(a) Unless the Certificate of Incorporation requires a greater number, and except with respect to questions related to indemnification arising under Section 43 herein for which a quorum shall be one-third of the exact number of directors fixed from time to time, a quorum of the Board of Directors shall consist of a majority of the exact number of directors

fixed from time to time by the Board of Directors in accordance with the Certificate of Incorporation; *provided, however,* at any meeting whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting.

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

Section 23. Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing or writings or transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 24. Fees And Compensation. Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors, including, if so approved, by resolution of the Board of Directors, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor.

Section 25. Committees.

(a) Executive Committee. The Board of Directors may appoint an Executive Committee to consist of one (1) or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any Bylaw of the corporation.

(b) Other Committees. The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one (1) or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws.

(c) Term. The Board of Directors, subject to any requirements of any outstanding series of Preferred Stock and the provisions of subsections (a) or (b) of this Section 25, may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his or her death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

(d) Meetings. Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section 25 shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place which has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon notice to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee.

Section 26. Organization. At every meeting of the directors and stockholders, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the Chief Executive Officer (if a director), or, if a Chief Executive Officer is absent, the President (if a director), or if the President is absent, the most senior Vice President (if a director), or, in the absence of any such person, a chairman of the meeting chosen by a majority of the directors present, shall preside over the meeting. The Secretary, or in his or her absence, any Assistant Secretary or other officer or director directed to do so by the President, shall act as secretary of the meeting. The Chairman of the Board of Directors shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

ARTICLE V

OFFICERS

Section 27. Officers Designated. The officers of the corporation shall include, if and when designated by the Board of Directors, the Chairman of the Board of Directors (provided that notwithstanding anything to the contrary contained in these Bylaws, the Chairman of the Board of Directors shall not be deemed an officer of the corporation unless so designated by the Board of Directors), the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer and the Treasurer. The Board of Directors may also appoint one or more Assistant Secretaries and Assistant Treasurers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation shall be fixed by or in the manner designated by the Board of Directors.

Section 28. Tenure And Duties Of Officers.

(a) General. All officers shall hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors.

(b) Duties of Chief Executive Officer. The Chief Executive Officer shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board of Directors has been appointed and is present. Unless an officer has been appointed Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. To the extent that a Chief Executive Officer has been appointed and no President has been appointed, all references in these Bylaws to the President shall be deemed references to the Chief Executive Officer. The Chief Executive Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(c) Duties of President. The President shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board of Directors or the Chief Executive Officer has been appointed and is present. Unless another officer has been appointed Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(d) Duties of Vice Presidents. The Vice Presidents may assume and perform the duties of the President in the absence or disability of the President or whenever the office of President is vacant. The Vice Presidents shall perform other duties commonly incident to their office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer, or, if the Chief Executive Officer has not been appointed or is absent, the President shall designate from time to time.

(e) Duties of Secretary. The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties provided for in these Bylaws and other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time. The President may direct any Assistant Secretary or other officer to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(f) Duties of Chief Financial Officer. The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Chief Financial Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. To the extent that a Chief Financial Officer has been appointed and no Treasurer has been appointed, all references in these Bylaws to the Treasurer shall be deemed references to the Chief Financial Officer. The President may direct the Treasurer, if any, or any Assistant Treasurer, or the Controller or any Assistant Controller to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each Controller and Assistant Controller shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(g) Duties of Treasurer. Unless another officer has been appointed Chief Financial Officer of the corporation, the Treasurer shall be the chief financial officer of the corporation and shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President, and, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Treasurer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

Section 29. Delegation Of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

Section 30. Resignations. Any officer may resign at any time by giving notice in writing or by electronic transmission to the Board of Directors or to the President or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer.

Section 31. Removal. Any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by the unanimous written consent of the directors in office at the time, or by any committee or by the Chief Executive Officer or other superior officers upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI

EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

Section 32. Execution Of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name without limitation, or to enter into contracts on behalf of the corporation, except where otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the corporation.

All checks and drafts drawn on banks or other depositaries on funds to the credit of the corporation or in special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do.

Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

Section 33. Voting Of Securities Owned By The Corporation. All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairman of the Board of Directors, the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII

SHARES OF STOCK

Section 34. Form And Execution Of Certificates. The shares of the corporation shall be represented by certificates, or shall be uncertificated if so provided by resolution or resolutions of the Board of Directors. Certificates for the shares of stock, if any, shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock represented by certificate in the corporation shall be entitled to have a certificate signed by or in the name of the corporation by the Chairman of the Board of Directors, or the President or any Vice President and by the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by him in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he were such officer, transfer agent, or registrar at the date of issue.

Section 35. Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or the owner's legal representative, to agree to indemnify the corporation in such manner as it shall require or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed.

Section 36. Transfers.

(a) Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and, in the case of stock represented by certificate, upon the surrender of a properly endorsed certificate or certificates for a like number of shares.

(b) The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

Section 37. Fixing Record Dates.

(a) In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, subject to applicable law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for

determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided*, *however*, that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 38. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VIII

OTHER SECURITIES OF THE CORPORATION

Section 39. Execution Of Other Securities. All bonds, debentures and other corporate securities of the corporation, other than stock certificates (covered in Section 34), may be signed by the Chairman of the Board of Directors, the President or any Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal impressed thereon or a facsimile of such seal imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant Treasurer; *provided, however,* that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by the Treasurer or an Assistant Treasurer of the corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the corporation.

ARTICLE IX

DIVIDENDS

Section 40. Declaration Of Dividends. Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law.

Section 41. Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created.

ARTICLE X

FISCAL YEAR

Section 42. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

ARTICLE XI

INDEMNIFICATION

Section 43. Indemnification Of Directors, Officers, Employees And Other Agents.

(a) Directors. The corporation shall indemnify its directors to the fullest extent not prohibited by the DGCL or any other applicable law; *provided, however,* that the corporation may modify the extent of such indemnification by individual contracts with its directors; and, *provided, further,* that the corporation shall not be required to indemnify any director in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the DGCL or any other applicable law or (iv) such indemnification is required to be made under subsection (d).

(b) Officers, Employees and Other Agents. The corporation shall have power to indemnify its officers, employees and other agents as set forth in the DGCL or any

other applicable law. The Board of Directors shall have the power to delegate the determination of whether indemnification shall be given to any such person to such officers or other persons as the Board of Directors shall determine.

(c) Expenses. The corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director of the corporation, or is or was serving at the request of the corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director in connection with such proceeding; *provided*, *however*, that, if the DGCL requires, an advancement of expenses incurred by a director in his or her capacity as a director (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the corporation of an undertaking, by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such indemnitee is not entitled to be indemnified for such expenses under this section or otherwise.

(d) Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors under this Bylaw shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director. Any right to indemnification or advances granted by this Bylaw to a director shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within ninety (90) days of request therefor. To the extent permitted by law, the claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting the claim. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because the director has met the applicable standard of conduct set forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by a director to enforce a right to indemnification or to an advancement of expenses hereunder, the burden of proving that the director is not entitled to be indemnified, or to such advancement of expenses, under this section or otherwise shall be on the corporation.

(e) Non-Exclusivity of Rights. The rights conferred on any person by this Bylaw shall not be exclusive of any other right which such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his or her official

capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL, or by any other applicable law.

(f) Survival of Rights. The rights conferred on any person by this Bylaw shall continue as to a person who has ceased to be a director and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) Insurance. To the fullest extent permitted by the DGCL or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this section.

(h) Amendments. Any repeal or modification of this section shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) Saving Clause. If this Bylaw or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director to the full extent not prohibited by any applicable portion of this section that shall not have been invalidated, or by any other applicable law. If this section shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director to the full extent under any other applicable law.

(j) Certain Definitions. For the purposes of this Bylaw, the following definitions shall apply:

(1) The term “proceeding” shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

(2) The term “expenses” shall be broadly construed and shall include, without limitation, court costs, attorneys’ fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(3) The term the “corporation” shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this section with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(4) References to a “director,” “executive officer,” “officer,” “employee,” or “agent” of the corporation shall include, without limitation, situations where such person is serving at the request of the corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(5) References to “other enterprises” shall include employee benefit plans; references to “fines” shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to “serving at the request of the corporation” shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner “not opposed to the best interests of the corporation” as referred to in this section.

ARTICLE XII

NOTICES

Section 44. Notices.

(a) Notice To Stockholders. Written notice to stockholders of stockholder meetings shall be given as provided in Section 7 herein. Without limiting the manner by which notice may otherwise be given effectively to stockholders under any agreement or contract with such stockholder, and except as otherwise required by law, written notice to stockholders for purposes other than stockholder meetings may be sent by U.S. mail or nationally recognized overnight courier, or by facsimile, telegraph or telex or by electronic mail or other electronic means.

(b) Notice To Directors. Any notice required to be given to any director may be given by the method stated in subsection (a), as otherwise provided in these Bylaws, or by overnight delivery service, facsimile, telex or telegram, except that such notice other than one which is delivered personally shall be sent to such address as such director shall have filed in writing with the Secretary, or, in the absence of such filing, to the last known post office address of such director.

(c) Affidavit Of Mailing. An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its transfer agent appointed with respect to the class of stock affected, or other agent, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained.

(d) Methods of Notice. It shall not be necessary that the same method of giving notice be employed in respect of all recipients of notice, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.

(e) Notice To Person With Whom Communication Is Unlawful. Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

(f) Notice to Stockholders Sharing an Address. Except as otherwise prohibited under DGCL, any notice given under the provisions of DGCL, the Certificate of Incorporation or the Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent shall have been deemed to have been given if such stockholder fails to object in writing to the corporation within sixty (60) days of having been given notice by the corporation of its intention to send the single notice. Any consent shall be revocable by the stockholder by written notice to the corporation.

ARTICLE XIII

AMENDMENTS

Section 45. Bylaw Amendments. Subject to the limitations set forth in Section 43(h) of these Bylaws or the provisions of the Certificate of Incorporation, the Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the corporation. Any adoption, amendment or repeal of the Bylaws of the corporation by the Board of Directors shall require the approval of a majority of the authorized number of directors. The stockholders also shall have power to adopt, amend or repeal the Bylaws of the corporation; *provided*, *however*, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors, voting together as a single class.

ARTICLE XIV

LOANS TO OFFICERS OR EMPLOYEES

Section 46. Loans To Officers Or Employees. Except as otherwise prohibited by applicable law, including the Sarbanes-Oxley Act of 2002, the corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these Bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

MATERIAL SUPPLY AGREEMENT

This Agreement is made and entered into and effective as of November 2, 2009 (the "Effective Date") by and between Johnson Matthey Inc., a Pennsylvania corporation ("JMI") and KemPharm, Inc., an Iowa corporation, with corporate headquarters located at 7 Hawkeye Drive Suite 103 North Liberty, IA 52317 ("Company"). This Agreement may be referenced in orders and other correspondence related hereto as Agreement No. 656

WITNESSETH:

WHEREAS, Company is in the business of developing, manufacturing and marketing pharmaceutical products and Company wishes to develop and file with the U.S. Food and Drug Administration new drug applications ("NDA" as further defined hereinbelow) for drug products containing active pharmaceutical ingredient ("API" as further defined hereinbelow), and upon approval of such application(s), Company will manufacture and market product containing such API to be exclusively supplied by JMI ("Product" as further defined hereinbelow) in the United States of America and its Territories (the "Territory"); and

WHEREAS, JMI is in the business of, among other things, developing, manufacturing and marketing raw materials, and JMI wishes to supply Company with all of Company's requirements of API for Product subject to the terms of this Agreement; and

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained herein, the parties agree as follows:

ARTICLE 1. Definitions

"Act" means the Federal Food, Drug and Cosmetic Act of 1938, including any amendments thereto and all regulations promulgated thereunder.

"Additional Royalty" has the meaning provided in Section 4(a)(ii).

"Affiliate" means, with respect to a party hereto, any person or entity directly or indirectly controlling, controlled by or under common control with, such party, with "control" meaning the ownership or control, directly or indirectly, of at least fifty percent (50%) of the voting equity of such party or person, or possession of the power to direct or cause the direction of the management and policies of such party, person or entity, whether through the ownership of voting securities, by contract or otherwise.

"Annual Gross Sales" has the meaning provided in Section 4(a)(i)

"API" means an active pharmaceutical ingredient which is an ester of hydrocodone or any derivatives consisting or comprising of KP201 and/or any analogues thereof, and their salt form(s) including those salt form(s) subsequently selected pursuant to Section 2(b).

"API Manufacturing Cost" means JMI's fully allocated cost of manufacturing the API for the Product calculated in accordance with GAAP on a consistently applied basis, including but not limited to costs of direct materials, direct labor and manufacturing overheads expended in the production, packaging, quality control and assurance, and regulatory compliance of the API.

"API Specifications" has the meaning provided in Section 9(a).

"Bankruptcy Law" has the meaning provided in Section 6(d).

"Calendar Quarter" means any of the three-month periods beginning January 1, April 1, July 1 and October 1 of any calendar year during the term of this Agreement.

"Calendar Year" means any of the twelve-month periods beginning January and ending December 31 of any year during the term of this Agreement.

"cGMP" means current Good Manufacturing Practices established by the FDA, as amended from time to time.

"Commercially Reasonable Efforts" means efforts and resources equivalent to those normally employed by a reasonable third party in the pharmaceutical industry, when exercising reasonable business practice and judgment, to diligently develop, manufacture, procure requisite regulatory approvals, market and/or distribute a product of similar market potential at a similar stage in its product life, taking into account the establishment of the Product in the Marketplace, the number of competitors supplying products competing in the Marketplace, the conditions or prospects of regulatory approval, the profitability of the Product and other relevant factors

"Commercial Launch" means the first arm's length transaction by Company with a third-party for the commercial sale of the Product after NDA Approval is received.

"Company" means KemPharm, Inc., a corporation, with corporate headquarters located at 7 Hawkeye Drive Suite 103, North Liberty, IA 52317.

"Company Shares" has the meaning provided in Section 2(c).

"Confidential Information" means or includes (i) any information or data owned or licensed by a party hereto which such party treats as proprietary and confidential, including, but not limited to, data, documents, trade secrets, methods, processes, techniques, know-how, show-how and scientific and business information, which information or data is exchanged between the parties pursuant to this Agreement or in contemplation of the transactions contemplated hereby, and (ii) any and all business and technical information or data that are developed pursuant to this Agreement.

"DEA" means the United States Drug Enforcement Administration and any successor agency thereto.

"DMF" means a drug master file or any supplement thereto for API filed by JMI with the FDA pursuant to the Act.

"Effective Date" means the effective date of this Agreement first written above.

"FDA" means the United States Food and Drug Administration and any successor agency thereto.

"Firm Quarter" has the meaning provided in Section 3(b).

"FOB" means Free on Board.

"GAAP" means generally accepted accounting procedures in effect at the time of application in the United States of America.

"Gross Sales" means, with respect to Product, the total amount invoiced for sales of such Product in the Territory by Company and its Affiliates and licensees to an independent third party in bona fide, arms-length transactions.

"Initial Term" has the meaning provided in Section 6(a).

"JMI" means Johnson Matthey Inc., a Pennsylvania corporation having a place of business at 2003 Nolte Dr., West Deptford, NJ 08066.

"KP201" means the Company's KP201 conjugate technology related to hydrocodone.

"Marketplace" means the market for the commercial sale of narcotic analgesic pharmaceutical drug products in the Territory.

"Minimum Royalty" has the meaning provided in Section 4(a).

"NDA" means a new drug application for Product to be filed by Company with the FDA as provided in Section 2(a).

"NDA Approval" means the approval by the FDA of the Product for sale and marketing following completion of the regulatory approval process for the NDA.

"Net Profits" means, with respect to Product, the Gross Sales of the Product less: (i) distribution fee, (ii) Product Manufacturing Costs paid by Company, (iii) accrued customary trade, cash and quantity discounts, (iv) accrued rebates, adjustments and allowances, including those for rejections, recall, returns, and floor stock adjustments, (v) accrued Medicaid and other federal or state rebates, chargebacks and similar items, (vi) if included in the aggregate gross invoice price of such Product, sales or excise taxes (including any such tax as a value added tax or similar tax or charge), and (vii) freight and insurance on shipment of such Product, each such reduction calculated in accordance with GAAP consistently applied.

"PPI" means the Producer Price Index determined from Table VI of the Producer Prices and Price Index, commodity code 063 for drugs and pharmaceuticals, United States Bureau of Labor Statistics (or if discontinued such equivalent index as is mutually agreed to by the parties).

"Product" means the pharmaceutical drug product containing API which is the subject of the NDA.

"Product Manufacturing Costs" means the fully allocated cost of formulating and manufacturing the Product calculated in accordance with GAAP on a consistently applied basis, including but not limited to costs of direct materials, direct labor and manufacturing overheads expended in the production, packaging, quality control and assurance, and regulatory compliance of the Product.

"Renewal Terms" has the meaning provided in Section 6(a).

"Royalty" has the meaning provided in Section 4(a).

"Term" means the Initial Term and any Renewal Term(s) of this Agreement.

"Territory" has the meaning provided in the First Recital above.

ARTICLE 2. Development and Development Costs

a) Company shall use Commercially Reasonable Efforts to develop, prepare and submit for approval an NDA with the FDA and perform all related development activities up to and including receiving NDA Approval in conformity in all material respects with all applicable federal, state and local laws, regulations, orders and ordinances pertinent thereto.

Company will be responsible for manufacturing of the Product submission batches and satisfactory submission thereof to the FDA for the NDA submission. For the avoidance of doubt, Company shall be the sole owner of KP201, the Product, and the NDA and shall be responsible for managing the regulatory approval process with respect to the NDA, including handling all quality assurance decisions with respect to approving the Product for commercial sale, recalls and all other product compliance issues with respect to the Product. With respect to KP201, the Product, and any inventions which Company solely owns, Company shall be the sole owner of, and solely responsible for the preparation, filing, prosecution and maintenance of, any and all existing and/or hereinafter filed or issued patents, including continuations and substitute applications thereof, and all foreign counterparts thereof, at Company's sole expense.

Company shall keep JMI informed of the progress of the prosecution of the NDA. Upon receipt of written or oral communications from the FDA or any other regulatory authority relating to the Product and the Product's NDA, Company shall notify JMI and provide a copy of any written communication as requested as soon as reasonably practicable but in no case more than fourteen (14) business days from the receipt thereof.

b) Subject to JMI receiving the necessary DEA quota, JMI shall use Commercially Reasonable Efforts to provide the following development services:

Phase 1: JMI will deliver to Company [*] each of API in [*] forms, to be reasonably determined by Company;

Phase 2: Upon Company's selection and written notification to JMI of the desired [*] form of the API, JMI will scale and optimize the process for commercial production; and

Phase 3: Upon completion of Phase 2, JMI will prepare and ship to Company [*] of cGMP API in the [*] form selected during Phase 2. The parties anticipate the shipment of such [*] cGMP API will be approximately [*] from the Effective Date, but in no event shall such shipment be earlier than [*] from the date on which Company notifies JMI of the selected [*] form of the API in Phase 2.

c) In consideration of the development work provided by JMI pursuant to Article 2(b), and the provision of research and development quantities of API to Company by JMI hereunder, Company shall issue to JMI 564,516 shares of the Company's Class A common stock (the "Company Shares") upon completion of Phase 3 as defined in Section 2(b). The determination of the Company's Shares is based on the investment described in the first sentence of this Section 2(c) having a value of $[*] at a per share price of $[*]. Prior to the Company's issuance of the Company Shares to JMI, JMI shall execute a subscription agreement substantially in the form attached hereto as Exhibit C.

d) JMI shall use Commercially Reasonable Efforts to develop reference standards, impurities, applicable validated analytical methods, and stability profiles for the API in conformity in all material respects with all applicable federal, state and local laws, regulations orders and ordinances pertinent thereto.

e) JMI shall prepare and submit to the FDA the DMF and maintain, amend, update and supplement such DMF as required by the FDA in order for an NDA which incorporates the DMF by reference to receive NDA Approval. During the Term JMI shall grant to Company exclusive access to the DMF for reference in connection with Company's NDA, and JMI shall file with the FDA such written authorizations as may be reasonably necessary in order to permit such access.

f) Subject to receiving the necessary DEA quotas, the parties will endeavor to meet the NDA development timelines provided in Exhibit A.

g) JMI shall use Commercially Reasonable Efforts to support Company's preparation, filing, prosecution and maintenance of the NDA.

h) Upon receiving NDA Approval, Company shall use Commercially Reasonable Efforts in its Commercial Launch of the Product in accordance with all specifications set forth in the regulatory filings applicable to the Product.

ARTICLE 3. Purchase and Sale of API

a) During the Term Company agrees to purchase from JMI one hundred percent (100%) of Company's requirements of the API for the Product in the Territory, subject to the provision of Section 3(h), and JMI shall satisfy such requirements by selling directly to Company such API in accordance with the forecasting provisions in Section 3(b). JMI shall not supply any third party in the Territory with API during the Term.

b) Unless otherwise mutually agreed in writing, at least [*] in advance of Company's Commercial Launch hereunder, Company shall provide JMI with a [*] month estimate, by Calendar Quarter, of its requirements of such API. [*] days prior to the start of each Calendar Quarter (the "Firm Quarter"), the forecast for such quarter shall become a binding order, which, for record purposes only, Company shall provide JMI with a purchase order. Prior to the aforementioned [*] day, Company may modify its forecast for a Firm Quarter by no more than [*] from the last estimate for such Firm Quarter unless otherwise mutually agreed upon by both parties by providing written notice of such modification to JMI. Moreover, at least [*] days in advance of the Firm Quarter, Company shall update its estimates for the [*] Calendar Quarters succeeding the Firm Quarter and JMI shall be entitled to rely on the forecast for the [*] in such rolling forecast for the purpose of obtaining the necessary raw materials for the manufacture of such API.

For example and for illustration purposes only, if Company desires that Commercial Launch of Product begins on [*], Company shall provide to JMI no later than [*], a forecast of the quantities required for the calendar quarters beginning on [*]. On [*], the forecast for the quarter beginning on [*] (the Firm Quarter in this example), will become a binding order, and Company will provide JMI with an updated forecast of the quantities required for the calendar quarters beginning on [*].

Additionally, Company will provide JMI with DEA-222 and Certificate of Available Quota forms in proportion to such forecasts not less than ten (10) days prior to any requested delivery date. If so requested by Company and subject to Article 5, JMI will use Commercially Reasonable Efforts to supply Company with API in excess of any estimates or forecasts, provided that failure to provide such excess amounts shall not be deemed to be a breach of this Agreement.

c) For the initial order of API to be used for commercial sale of the Product, the parties will agree on the forecast, including shipment schedules, at the earliest practicable time and JMI will use Commercially Reasonable Efforts to supply such API as specified in that order. Batch sizes for lots to be used for submission in Company's NDA will be defined by the Company, subject to JMI's agreement, during the validation process, but shall not be less than one-half of the entire batch size required for the completion of the validation process.

d) API shall be shipped FOB JMI's West Deptford plant, packed in accordance with DEA and United States Department of Transportation requirements for interstate shipment. JMI shall ship the quantity of API ordered by Company in accordance with the delivery instructions set forth in each purchase order and mutually agreed prior to shipment. In the event Company is unable for any reason to supply the necessary DEA Certificate of Available Quota form prior to the requested delivery date, Company shall pay for such Product which will be held by JMI at Company's risk of loss pending receipt of the appropriate Quota form from Company.

e) Excepting quantity orders, the terms and conditions contained in any purchase order, acknowledgment and invoice issued by either party in connection with this Agreement shall be void and of no effect.

f) JMI shall produce API in conformance with the applicable API Specifications set forth at Exhibit B. If the FDA modifies the API Specifications as a condition for obtaining NDA Approval and Company so notifies JMI in writing, JMI shall use Commercially Reasonable Efforts to perform its obligations under this Agreement at no additional cost to Company; provided that in the event that the Specifications are changed in a manner that results in increased costs to JMI, the parties shall negotiate in good faith a price increase to be reflected in the API Manufacturing Cost that is commensurate with the cost increase.

g) Except with respect to JMI's responsibility in connection with the DMF as provided in Section 2(e), Company shall be responsible for all regulatory and commercial activities related to Product, including without limitation, performing quality assurance testing and stability testing, maintaining adverse drug information, complaints and annual reports, so that the Product conforms to all applicable federal, state and local laws, regulations orders and ordinances.

h) Upon Commercial Launch of the Product, JMI shall identify and qualify an alternative site of JMI or its Affiliates to serve as a secondary supplier of API, subject to the approval of Company, which approval shall not be unreasonably withheld. In the event JMI is unable to qualify a secondary supplier, Company may qualify a secondary supplier to provide no greater than [*] of the API for each Calendar Year; provided, however, that in the event JMI is unable to satisfy Company's requirements, then: (i) Company may purchase from such secondary supplier [*], and (ii) JMI shall [*], if any, [*] the secondary supplier [*] so long as JMI consents to the [*] such secondary supplier, which consent shall not be unreasonably withheld, and Company does not include the [*] in the calculation of [*] for purposes of calculating the [*]. For the avoidance of doubt, all [*] calculations will be based on [*] and will be [*].

ARTICLE 4. Price and Payment

a) Royalty: During the Term Company will pay JMI a royalty on Net Profits. The total royalty shall be calculated as the Minimum Royalty (defined below) *plus* the Additional Royalty (defined below). The Minimum Royalty and Additional Royalty are collectively referred to as the "Royalty" or "Royalties".

i) Minimum Royalty: JMI will provide Company, free of charge, any API which is delivered for use prior to the completion of the Product's validation process. In consideration thereof, during the Term, Company shall pay JMI a minimum royalty on the Net Profits of the Product sold in each Calendar Quarter in accordance with the following tiered royalty rate based on the Gross Sales of the Product for such Calendar Year ("Annual Gross Sales") (the foregoing royalty hereinafter the "Minimum Royalty"):

Annual Gross Sales (in USD) of the Product	Royalty Rate on Net Profits
For the First $[*]	[*]%
From Greater than $[*] up to and including $[*]	[*]%
From $[*] to $[*]	[*]%
From $[*] or greater	[*]%

For clarification and illustration purposes only, calculation of Minimum Royalty will be based on the following examples: the Minimum Royalty rate on Net Profits will be [*]% until cumulative sales reach $[*] USD after which time the Minimum Royalty rate will fall to the second tier i.e. [*]%; for example if the Gross Sales of the Product in the first three months of a Calendar Year were $[*], $[*], and $[*] respectively, the Minimum Royalty would be calculated as [*]% of Net Profits from the first $[*] of Annual Gross Sales plus [*]% of Net Profits from the next $[*] in Annual Gross Sales. If the cumulative Net Profit in any Calendar Quarter is a negative figure (a "Net Loss"), then for purposes of calculating the Minimum Royalty, such Net Loss shall be carried forward and offset against a subsequent Calendar Quarter's Net Profit; provided, however, that a Net Loss for any given Calendar Quarter cannot be carried forward beyond the [*] immediately following consecutive Calendar Quarters for purposes of calculating the Minimum Royalty for the subsequent Calendar Quarters.

ii) Additional Royalty: Subject to Section 4(a)(iii), JMI will provide Company, free of charge, any API which is delivered during the period of time occurring immediately after the completion of the validation process and continuing until API is delivered for use in Company's Commercial Launch. In consideration thereof, notwithstanding payment of the Minimum Royalty, Company shall pay JMI an additional royalty on the Net Profits of the Product sold in each Calendar Quarter in accordance with the following tiered royalty rate based on the Annual Gross Sales of the Product in such Calendar Year ("Additional Royalty"):

Annual Gross Sales (in USD) of the Product	Royalty Rate on Net Profits
For the First $[*]	[*]%
From Greater than $[*] up to and including $[*]	[*]%
From $[*] or greater	[*]%

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

For clarification and illustration purposes only, calculation of Additional Royalty will be based on the following examples: the Additional Royalty rate on the Net Profits will be [*]% until cumulative sales reach $[*] USD after which time the Additional Royalty rate will fall to the second tier i.e. [*]%; for example if the Annual Gross Sales of the Product in the first three months of a Calendar Year were $[*], $[*] and $[*], respectively, the Additional Royalty would be calculated as [*]% of Net Profits from the first $[*] of Annual Gross Sales plus [*]% of Net Profits from the next $[*] in Annual Gross Sales. For purposes of calculating the Additional Royalty, a Net Loss during any Calendar Quarter shall be carried forward and offset against a subsequent Calendar Quarter's Net Profit; provided, however, that a Net Loss for any given Calendar Quarter cannot be carried forward beyond the [*] immediately following consecutive Calendar Quarters for purposes of calculating the Additional Royalty for the subsequent Calendar Quarters.

(iii) After the completion of the validation process relating to the API, JMI and Company may negotiate and agree, in the form of a written addendum to the Agreement, upon a price per unit which Company shall pay JMI, in lieu of the Additional Royalty, for any API which is delivered during the period of time occurring immediately after the completion of the validation process and continuing until API is delivered for use in Company's Commercial Launch. If the parties so agree, Company will pay the agreed price per unit for such API and will not pay the Additional Royalty to JMI. If the parties cannot agree on such a price per unit of API, JMI will supply such API to Company free of charge and Company will pay Additional Royalty to JMI, pursuant to Section 4(a)(ii). Nothing in this Section 4(a)(iii) affects the required payment of the Minimum Royalty pursuant to Section 4(a)(i).

iv) Sales by Company to its Affiliates shall be made and, for purposes of the calculation of Annual Gross Sales and Net Profits, shall be deemed third party transactions and shall be deemed to have been made, if not actually made, at the price Company would have charged an unaffiliated buyer in an arm's length transaction of similar size and scope.

b) Price of API for Commercial Use by Company. Beginning with API delivered for use in Company's Commercial Launch and continuing until the expiration or termination of the Initial Term and Renewal Terms, if any, JMI will supply API for a price equal to the API Manufacturing Cost, subject to the following: The parties hereto acknowledge and agree that as of the Effective Date, JMI is unable to establish the API Manufacturing Cost. Therefore, the parties agree that after the completion of the Product's validation process and as soon as Commercially Reasonable Efforts permit, JMI will begin to compute the API Manufacturing Cost. Any Calendar Year-to-year increase in the API Manufacturing Cost in excess of the applicable PPI shall require the good faith negotiation and mutual agreement of the parties. JMI shall maintain true and accurate records, files and books of account containing all data reasonably required for the full computation and verification of the API Manufacturing Cost for each Calendar Quarter during the term of the Agreement. Such books and records shall be in accordance with GAAP consistently applied and shall be kept separate from records, files and books of account not pertaining solely to the API. JMI shall permit Company, or at JMI's option, a mutually agreed independent auditor, at Company's expense, to independently audit the API Manufacturing Cost.

c) Company shall pay all invoices from JMI for API pursuant to Sections 4(a)(iii) and 4(b) in full within [*] days after the date of the invoice in the form of a wire, check or money order. Company shall pay JMI any Royalties due under Section 4(a) within [*] days after the end of each Calendar Quarter in which Product is sold by Company and Net Profits resulting from such sales are greater than zero in the form of wire, check or money order (or other method of payment approved by JMI in writing). Company will make and retain for a period of [*] years following the termination of this Agreement true and accurate records, files and books of account containing all the data reasonably required for the full computation and verification of Net Profits and Royalties on the Product for each Calendar Year occurring during the term of the Agreement. Such books and records shall be maintained in accordance

with GAAP consistently applied and shall be kept separate from records, files and books of account not pertaining solely to the Product. Company shall permit JMI or, at Company's option, a mutually agreed independent auditor, at JMI's cost and expense, to inspect relevant books and records during regular business hours upon not less that fourteen (14) business days written notice.

d) A charge of [*] per month, or the maximum amount permitted by law, whichever is less, shall be due on any amounts due under Section 4(b) which are more than [*] days past due. Company shall be responsible for any duty, sales, use, excise or other tax applicable (except income taxes) to the sales of API by JMI to Company.

ARTICLE 5. DEA Quota and Supply Conditions

a) The parties expect that both the Product and the API will be scheduled under the Federal Controlled Substances Act. JMI and Company are required to obtain a quota from the DEA before producing the Product or the API. Such quotas are limited; therefore, each of the parties shall use its Commercially Reasonable Efforts to obtain DEA quotas for the Firm Quarter requested by Company, and to cooperate with the other party to obtain sufficient quotas.

b) Each party's obligation hereunder is subject to obtaining the necessary DEA quota. Except as provided in Section 3(f), neither party shall be liable to the other for that quantity of Product or API which the other party is unable to supply or take as a result of failure to obtain a DEA quota, provided that each party has used Commercially Reasonable Efforts to obtain sufficient DEA quota.

ARTICLE 6. Term

a) This Agreement shall become effective as of the Effective Date and shall continue in force i) in the event Company obtains a valid and enforceable patent relating to KP201 and/or the API, until the later of the earliest date on which all of the Company's rights in all such patents have expired or the tenth (10th) anniversary of the date on which the Commercial Launch occurs, or ii) in the event the Company does not obtain a valid and enforceable patent on KP201 or the API, for a period of five (5) years following Commercial Launch of the Product (in either case of (i) or (ii) being applicable, the "Initial Term"). Upon the expiration of the Initial Term, this Agreement shall automatically continue in force thereafter for subsequent renewal periods of two (2) years ("Renewal Terms") unless and until terminated at the expiration of the Initial Term or any Renewal Term by either party providing not less than twelve (12) months written notice prior to the expiration of the Initial Term or any Renewal Term, as the case may be.

b) Notwithstanding the foregoing, the Term shall terminate upon the unanimous written consent of the parties.

c) In the event of a material breach of this Agreement by a party and subject to Article 13, the other party shall have the right to deliver a written notice of breach to the defaulting party. If such breach is not cured within [*] days after delivery of such notice, the nondefaulting party, at its sole option, may terminate the term of this Agreement at any time by delivery of written notice of termination to the defaulting party; provided, however, if the breach cannot reasonably be cured despite Commercially Reasonable Efforts within a [*] day period, then the cure period shall be extended for no more than an additional [*] day period, provided the defaulting party continues to make Commercially Reasonable Efforts to cure the breach.

d) In the event that a party shall (i) voluntarily commence any proceeding or file any petition seeking relief under any Federal, state or local bankruptcy, insolvency, liquidation, receivership

or similar law (a "Bankruptcy Law"), (ii) consent to the institution of, or fail to contravene in a timely and appropriate manner, any such proceeding or the filing of any such petition, (iii) apply for or consent to the appointment of a receiver, trustee, custodian, sequestrator or similar official for such party or for a substantial part of its property or assets, (iv) file an answer admitting the material allegations of a petition filed against it in any such proceeding or (v) make a general assignment for the benefit of creditors, the other party, at its sole option, may terminate the Term at any time by delivery of written notice of termination to the party subject to such event.

e) In the event that a party shall be subject to the commencement of any involuntary proceeding or the filing of any involuntary petition in a court of competent jurisdiction seeking (i) relief in respect of such party or of a substantial part of its property or assets under any Bankruptcy Law, (ii) the appointment of a receiver, trustee, custodian, sequestrator, or similar official for such party or for a substantial part of its property or assets or (iii) the winding-up or liquidation of such party, and such proceeding or petition shall continue undismissed for [*] days or an order or decree approving or ordering any of the foregoing shall continue unstayed and in effect for [*] days, the other party, at its sole option, may terminate the Term at any time by delivery of written notice of termination to the party subject to such event.

f) Termination for default or breach hereunder or for any other reason shall have no effect on performance obligations or amounts to be paid which have accrued up to the effective date of such termination. Articles 8, 9, 10, 11 and 15, Section 2(c), and this Section 6(f) shall indefinitely survive the expiration or other termination of this Agreement.

ARTICLE 7. Assignment or Transfer of Interest

Neither party shall directly or indirectly sell, assign or transfer any part or all of its interest in this Agreement without the prior written consent of the other party, which consent shall not be unreasonably withheld; provided, however, that a change in control of a party shall not be deemed to constitute a transfer of such party's interest. Notwithstanding the foregoing, JMI may, with the prior approval of Company, transfer its interest to an Affiliate of JMI if such Affiliate is a qualified manufacturer. Subject to the first sentence of this Article 7, in the event Company sells or transfers its NDA to the Product, this Agreement shall also be assigned to the purchaser or transferee and become an obligation of the subsequent NDA holder.

ARTICLE 8. Confidentiality

The parties hereto agree that their obligations to maintain the confidentiality of the Confidential Information shall be not less than the obligations described in the Confidentiality Agreement by and among JMI and Company dated November 28, 2009, a copy of which is attached hereto as Exhibit D, notwithstanding that such agreement may have been terminated prior to the termination of the confidentiality obligations under this Agreement. The confidentiality obligations under this Agreement shall remain in full force and effect during the Term and shall continue for [*] years beyond the expiration or termination of this Agreement.

ARTICLE 9 Warranties and Limitations

a) JMI warrants that the API supplied to Company hereunder will conform at the time of shipment from JMI's West Deptford, New Jersey plant to the specifications described in Exhibit B attached hereto (the "API Specifications"), as the API Specifications may from time-to-time be amended by mutual written agreement or as required by the FDA, other governmental body in the United States or the then current edition of the U.S. Pharmacopoeia.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

b) JMI warrants to Company that JMI has not caused, as of the date of each shipment hereunder of any articles subject to the provision of the Act, such article, when shipped from JMI's West Deptford, New Jersey plant, to be adulterated or misbranded within the meaning of the Act or of any applicable state law in which the definitions of adulteration and misbranding are substantially the same as those contained in the Act, or an article that may not, under the provision of Sections 404, 505, or 512 of the Act, be introduced into interstate commerce. Except as expressly stated in paragraphs a) and b) of this Article 9, JMI MAKES NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR ANY OTHER MATTER WITH RESPECT TO THE API WHETHER USED ALONE OR IN COMBINATION WITH OTHER SUBSTANCES.

c) JMI will provide Company together with each invoice the results of all assays required to be run under the API Specifications. Any shipment of API will be deemed accepted by Company no later than [*] days after receipt by Company or its designee of the API. If such shipment of API does not comply with the API Specifications, has been damaged prior to being provided to the carrier for shipment, or if there is a shortage in the quantity prior to being provided to the carrier for shipment, Company shall promptly notify JMI in writing, but, in any event, not later than [*] days after receipt. Company or its designee shall promptly return such API to JMI at JMI's expense, or Company shall undertake such other response as is mutually agreed upon in writing by the parties. JMI shall have the right, but not the obligation, to retest the rejected API within [*] days after its return from Company. In the event that JMI disputes Company's determination that API does not meet the API Specifications or has been damaged or is subject to a shortage in quantity, the parties shall meet to resolve, in good faith, such dispute; provided that written notice by JMI to Company of any such dispute must be made no later than [*] days after Company's return of the API.

d) Upon return of any rejected API, and JMI's agreement, or a final determination in accordance with this Agreement, that such API fails to comply with JMI's limited warranty or has been damaged, JMI will replace the API at JMI's cost and will resubmit to Company within [*] days of receipt of additional raw materials. COMPANY'S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY SHALL BE DIRECT DAMAGES, AND JMI's LIABILITY TO COMPANY FOR ANY AND ALL LOSSES OR DAMAGE FROM ANY CAUSE WHATSOEVER, INCLUDING, WITHOUT LIMITATION, ALLEGED NEGLIGENCE, SHALL IN NO EVENT EXCEED THIS OBLIGATION TO REPLACE THE API AND RESUBMIT IT TO COMPANY, OR IN THE EVENT THAT JMI FAILS TO REPLACE THE API, THEN TO [*] FOR THE [*] A SECONDARY SUPPLIER; provided that JMI's obligation to [*] for the [*] a secondary supplier is subject to the following conditions: (x) JMI consents to the [*] such secondary supplier, which consent shall not be unreasonably withheld, and (y) Company shall not include the [*] in the calculation of [*] for purposes of calculating the [*]. For the avoidance of doubt, all [*] calculations will be based on [*] and will be [*]. Notwithstanding the forgoing, if Company rejects three or more API shipments during any [*] consecutive month period, and JMI agrees, or a final determination is made, that each such shipment failed to comply with JMI's limited warranty under this Article 9, then Company may find JMI to be in material breach and exercise its right under Section 6(c) to terminate the Agreement. JMI shall not be liable for, and Company assumes responsibility for, all personal injury and property damage resulting from the handling, possession, or use of the API following Company's or its designee's receipt of the API.

ARTICLE 10. Limitation on Liability

Any provision of this Agreement to the contrary notwithstanding, neither party will be liable to the other party for lost profits, production losses, special, incidental or consequential damages sustained directly by that party, whether such party's claim is in contract, negligence, strict liability or otherwise.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

ARTICLE 11. Indemnification

a) Company agrees to indemnify and hold harmless JMI from all claims, demands, losses, liabilities, damages, and/or expenses (including, without limitation, attorneys fees) ("Liabilities") which may be sustained or claimed against JMI arising out of the development, manufacture, making, handling, possession, use, offer for sale, sale, supply or import of the API for Product, except to the extent that such Liabilities arise or result from JMI's liability under Section 11(b). The forgoing indemnity is subject to JMI promptly notifying Company in writing of all claims and threatened claims against JMI for which JMI may be entitled to indemnity hereunder. Company shall have the right to defend and/or settle any such claim and JMI shall give Company such defense. JMI shall have the right to participate in such defense at its cost.

b) JMI agrees to indemnify and save harmless Company from all Liabilities which may be sustained or claimed by third-parties against Company based on JMI's negligence or willful misconduct, which causes API to fail to meet API Specifications, except to the extent of Company's liability under Section 11(a,) provided however, JMI's maximum liability under the Agreement shall not exceed, in the aggregate, [*] Dollars US. The foregoing indemnity is subject to Company promptly notifying JMI in writing of all claims and threatened claims against Company for which Company may be entitled to indemnity hereunder. JMI shall have the right to defend and/or settle any such claim, and Company shall give JMI such defense. Company shall have the right to participate in such defense at its cost.

c) JMI shall carry comprehensive general liability insurance, including insurance against claims for bodily injury or property damage, in an amount of not less than $[*] per occurrence and $[*] in the aggregate. Company shall carry comprehensive general liability insurance, including coverage for claims of product liability, bodily injury or property damage, in an amount not less than $[*] per occurrence and $[*] in the aggregate, Such policy shall be endorsed to include the following: the policies shall provide for thirty (30) days' notice to the other Party of cancellation or material change in the coverage before such cancellation or change takes effect. Each party shall name the other party as additional insured on the insurance policies required to be maintained under this Article.

ARTICLE 12. Gross Inequities

It is the intent of the parties hereto that they shall mutually benefit from the terms, conditions and provisions of this Agreement, and in the event that either party shall suffer a gross inequity resulting from such terms, conditions or provisions, or from a substantial change in circumstances or conditions, the parties shall negotiate in good faith to resolve or remove such inequity. It is mutually understood and agreed, however, that nothing herein shall be construed to relieve either party of any of its obligations under this Agreement, unless and until such resolution or removal has been agreed to in writing by both parties.

ARTICLE 13. Force Majeure

Failure of JMI or Company to perform its obligations under this Agreement, other than the payment of amounts invoiced, shall not subject JMI or Company to any liability or a breach if such failure is caused or occasioned by an event of force majeure, including but not limited to, an act of God, or the public enemy, fire, explosion, flood, drought, war, riot, sabotage, embargo, strikes, or other labor trouble, failure in whole or in part, of suppliers to deliver on schedule materials, equipment or machinery, to interruption of or delay in transportation, compliance with any order, regulation or request of any government of competent jurisdiction or any officer, department, agency or committee thereof, including requisition or allocation or establishment of priority, or by compliance with a request authorized by such governmental authority of any manufacturer for material to be used by it, or by any

other event or circumstance of like or different character to the foregoing beyond the reasonable control of the nonperforming party. If either party suffers an event of force majeure, it shall immediately notify the other party and shall use all reasonable efforts to minimize the loss or inconvenience suffered by both parties. Both parties shall cooperate in good faith in order to minimize such loss and inconvenience and to reach an agreement as to how to proceed.

ARTICLE 14. Authorization

Each party represents and warrants to the other that all corporate action on the part of such party necessary for the authorization, execution and delivery of this Agreement and the performance of all obligations hereunder has been taken and persons executing this Agreement have due power and authority to do so.

ARTICLE 15. Other Provisions

a) In connection with the storage, distribution, sale or marketing of the Product or API pursuant to this Agreement, JMI and Company agree to use their best efforts to perform such activities in compliance with all applicable federal, state, and local laws, regulations and ordinances, including, but not limited to, the Act, as amended from time to time, and all rules and regulations promulgated thereunder.

b) Nothing contained in this Agreement and no action taken by any party to this Agreement shall be deemed to constitute such party or any such party's employees, agents, or representatives to be an employee, agent, or representative of the other party or shall be deemed to create any partnership, joint venture, association, or syndicate among the parties, or shall be deemed to confer on any party any express or implied right, power, or authority to enter into any agreement or commitment, expressed or implied, or to incur any obligation or liability, on behalf of the other party.

c) The parties shall execute any other instruments or perform any other acts that are or may be reasonably necessary to effectuate and carry on the obligations created by this Agreement.

d) This Agreement shall be binding upon and inure to the benefit of the permitted successors of the parties.

e) As to its subject matter, this Agreement, together with the Confidentiality Agreement, constitutes the entire agreement of the parties and supersedes all prior agreements between the parties. This Agreement may not be modified or amended except by an instrument in writing executed by the parties.

f) Failure of either party to exercise any right under this Agreement shall not be deemed to be a waiver thereof.

g) This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, and all of which shall constitute one and the same instrument.

h) This Agreement shall be governed by and construed under the laws of the State of Delaware, excluding its conflict of law principles.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

i) Any notice or other communication that a party desires to give to another party shall be in writing, and shall be deemed effectively given upon personal delivery, delivery by overnight courier, or upon transmission by telegram, telex, or, with receipt confirmed, telecopy, addressed to the other party at the address show below or at such other address as a party may designate by written notice in accordance with this subparagraph (i).

If to JMI:	Johnson Matthey Inc. 2003 Nolte Drive West Deptford, NJ 08066 Attention: John Fowler, President Fax: (856) 384-4582
with a copy to:	Johnson Matthey Inc. 435 Devon Park Drive Suite 600 Wayne, PA 19087 Attention: Robert Talley, President-Corporate & General Counsel Fax: (610) 971-3022
If to Company:	KemPharm, Inc. 7 Hawkeye Drive, Suite 103 North Liberty, IA 52317 Attention: Travis Mickle, President Fax: (319) 665-2577
With a copy to:	Simmons Perrin Moyer Bergman PLC 115 3rd St. SE, Suite 1200 Cedar Rapids, IA 52401 Attention: Thomas DeBoom Fax: (319) 366-1917

j) In the event that any term or provision of this Agreement is invalid or is declared null and void, then both parties shall agree on a substitute for such invalid and void terms with the intent of achieving the economic intent of the parties. The invalidity or voidness of any term or condition shall not affect the validity of any other term or condition contained herein nor the Agreement as a whole unless the provisions are the essence of, or inseparable from the remainder of the Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

Johnson Matthey Inc.	**KemPharm, Inc.**
By: /s/ John B. Fowler, IV	By: /s/ Travis C. Mickle
Its: President	Its: President
Date: May 13, 2010	Date: May 21, 2010

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EXHIBIT A

PROPOSED NDA DEVELOPMENT TIMELINES

[*]

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT B

API SPECIFICATIONS

None

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT C

SUBSCRIPTION AGREEMENT

17.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

KEMPHARM, INC.
SUBSCRIPTION AGREEMENT
CLASS A COMMON

THE SHARES OF SERIES CLASS A COMMON STOCK OF KEMPHARM, INC. HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR APPLICABLE STATE SECURITIES LAWS. THESE SHARES CANNOT BE SOLD, TRANSFERRED, ASSIGNED OR OTHERWISE DISPOSED OF, AND WILL NOT BE TRANSFERRED OF RECORD, EXCEPT IN COMPLIANCE WITH THE RESTRICTIONS ON TRANSFERABILITY CONTAINED IN THE GOVERNING DOCUMENTS (DEFINED BELOW), AND APPLICABLE FEDERAL AND STATE SECURITIES LAWS.

1. **Subscription. Johnson Matthey Inc.**, a Pennsylvania corporation (the "**Subscriber**") hereby agrees to acquire 564,516 shares of Class A Common Stock of **KemPharm, Inc.**, an Iowa corporation (the "**Company**"), set forth on the signature page hereof (the "**Shares**"), in accordance with and subject to the terms and conditions set forth in this Subscription Agreement. By execution hereof, the Subscriber acknowledges that the Company is relying upon the accuracy and completeness of the Subscriber's representations contained herein in complying with its obligations under applicable securities laws.

2. **Amount and Timing of Payment**. The Shares are being issued hereunder pursuant to that certain Material Supply Agreement effective as of November 2, 2009, by and between Subscriber and the Company as consideration for certain development work performed by Subscriber. Pursuant to said Material Supply Agreement, the Shares are being issued at a per share price of $[*]. No payment or further consideration is due from Subscriber for issuance of the Shares.

3. **Adoption of Governing Documents**. Subscriber hereby accepts, adopts and agrees to be bound by each and every provision of the Amended and Restated Articles of Incorporation of the Company, including all amendments and restatements of the same as of the date hereof (the "**Articles of Incorporation**"), and the Company's Amended and Restated Bylaws, as amended (the "**Bylaws**"). The Articles of Incorporation and the Bylaws are collectively referred to as the "**Governing Documents**."

4. **Representations, Warranties, Acknowledgements and Agreements of the Company**. The Company represents, warrants, acknowledges and agrees that:

(a) The Company is duly organized, validly existing and in good standing under the laws of the State of Iowa.

(b) This Subscription Agreement has been duly authorized by all necessary corporate action on behalf of the Company and is a valid and binding agreement on the part of the Company. All corporate action necessary to the authorization, issuance, and delivery of the Shares, including, without limitation, the approval by the holders of a majority in interest of the Company's preferred stock. Upon issuance pursuant to the terms hereof, the Shares will be fully paid and non-assessable.

(c) The capitalization of the Company as of the date hereof is set forth on Exhibit A hereto.

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5. **Representations, Warranties, Acknowledgements and Agreements of Subscriber**. Subscriber represents, warrants, acknowledges, agrees and understands that:

(a) The Shares are a speculative investment that involves a significant degree of financial risk. There is no assurance of any economic, income or other benefit from such investment. Subscriber has such knowledge and experience in financial, tax, investment and business matters so as to be capable of evaluating the merits and risks of an investment in the Shares.

(b) Subscriber is a Pennsylvania corporation validly existing in good standing.

(c) Subscriber has not been offered the Shares by any form of general solicitation or general advertising, including, but not limited to, any advertisement, article, notice or other communication published in any newspaper, magazine, or similar media or broadcast over television, radio, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising.

(d) Subscriber has had access prior to the execution of this Subscription Agreement to all information Subscriber considered necessary to enable Subscriber to evaluate the merits and risks of a prospective investment in the Shares. Subscriber has had the opportunity to ask questions of and receive answers from the Company, its officers, or a person or persons acting on its behalf, and to obtain any additional information necessary to verify the accuracy of the information to which Subscriber has had access. All questions raised by Subscriber have been answered to the full satisfaction of Subscriber.

(e) Subscriber understands that no Federal or state agency has recommended or endorsed the Shares or made any finding or determinations as to the fairness, accuracy or completeness of the provisions of this Subscription Agreement, the Governing Documents, the Shares or the issuance of the Shares.

(f) The Shares have not been registered under the Securities Act or applicable state securities laws, and are being offered and sold in reliance upon exemptions provided in the Securities Act and rules promulgated thereunder, and applicable state securities laws and regulations (collectively "**Applicable Laws**"). Subscriber makes the representations and warranties in this Subscription Agreement with the intent that the same may be relied upon by the Company in complying with such exemptions.

(g) The Company has no obligation or intention to register the Shares, or file the reports or make public the information required by Rule 144 under the Securities Act relating to trading in restricted securities, and that Rule 144 may not otherwise be available to permit such trading. Subscriber understands that the Company has no intention of filing any registration statement under the Applicable Laws that would require the Company to include any portion of the Shares because of the piggy-back rights granted to the Shares.

(h) Subscriber is acquiring the Shares subscribed for herein for Subscriber's own account for investment only and without any intention of reselling or distributing such Shares except in accordance with Applicable Laws and Governing Documents.

(i) Subscriber shall not sell, pledge, hypothecate, donate or otherwise transfer the Shares, whether or not for consideration, except (i) in accordance with Applicable Laws and the Governing Documents and (ii) upon the issuance of a favorable legal opinion rendered by counsel for the Company, or such other evidence as may be satisfactory to the Company, to the effect that any such transfer shall not be in violation of Applicable Laws.

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Subscriber agrees that should Subscriber desire to sell, pledge, hypothecate, donate or otherwise transfer the Shares subscribed for herein, any attorney's fees incurred in connection with the opinion of counsel obtained by the Company in connection therewith shall be paid in advance by Subscriber.

(j) Subscriber will need and is able to bear the economic risk of the investment in the Shares for an indefinite period of time. Subscriber has adequate financial or other means for providing for Subscriber's current needs and contingencies and has no need for liquidity in this investment. Subscriber will not be readily able to liquidate the investment in the Shares in case of an emergency.

(k) A notation will be made on the records of the Company regarding restrictions on the transferability of the Shares. The certificates representing the Shares will contain, In addition to any other legends required by the Governing Documents, a legend substantially to the following effect:

THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS, AND HAVE BEEN ACQUIRED PURSUANT TO AN INVESTMENT REPRESENTATION ON THE PART OF THE REGISTERED HOLDER OF SUCH SECURITIES FOR THE REGISTERED HOLDER'S OWN ACCOUNT FOR INVESTMENT, AND NEITHER THIS CERTIFICATE NOR THE SHARES REPRESENTED BY THIS CERTIFICATE SHALL BE SOLD, PLEDGED, HYPOTHECATED OR TRANSFERRED BY THE REGISTERED HOLDER EXCEPT UPON COMPLIANCE WITH THE ARTICLES OF INCORPORATION AND BYLAWS OF THE COMPANY AND UPON ISSUANCE OF A FAVORABLE OPINION OF COUNSEL FOR THE COMPANY OR SUBMISSION TO THE COMPANY OF SUCH OTHER EVIDENCE AS MAY BE SATISFACTORY TO THE COMPANY, TO THE EFFECT THAT TRANSFER OF SUCH SECURITIES WILL NOT BE IN VIOLATION OF THE SECURITIES ACT OF 1933, AS AMENDED, APPLICABLE STATE SECURITIES LAWS OR ANY RULE OR REGULATION THEREUNDER.

(1) This Subscription Agreement has been duly authorized by all necessary corporate action on behalf of the Subscriber and will be a valid and binding agreement on the part of the Subscriber. All corporate action necessary to the authorization, issuance, and delivery of the Shares will be taken prior to their issuance. Upon issuance, the Shares will be fully paid and non-assessable.

6. **Conditions and Contingencies**. The Subscriber's and the Company's respective obligations hereunder shall be subject to and contingent upon satisfaction of Section 42(b) of the Material Supply Agreement effective as of November 2, 2009 by and between the Subscriber and the Company.

7. **Information Rights**. For so long as the Subscriber and/or any of its affiliates is a holder of the Shares, the Company shall furnish to the Subscriber (i) within 60 days after the end of its 2nd fiscal quarter, or earlier if available, an unaudited balance sheet of the Company as at the end of such quarter and unaudited statements of income and cash flows of the Company for such two-quarter period, and (ii) within 180 days after the end of each fiscal year, or earlier if available, an audited balance sheet of the Company as at the end of such year and audited statements of income, stockholders' equity and changes in cash flow of the Company for such year, in each case prepared in accordance with generally accepted accounting principles consistently applied.

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8. **Irrevocability; Binding Effect**. The Subscriber acknowledges and agrees that, once accepted by the Company, the subscription hereunder is irrevocable, that the Subscriber is not entitled to cancel, terminate or revoke this Subscription Agreement or any agreement of the undersigned hereunder and that this Subscription Agreement and such other agreements shall survive the death or disability of the Subscriber and shall be binding upon and inure to the benefit of the parties and their heirs, executors, administrators, successors, legal representatives, and assigns. If the undersigned is more than one person, the obligations of the undersigned hereunder shall be joint and several and the agreements, representations, warranties and acknowledgments herein contained shall be deemed to be made by and be binding upon each such person and his or her heirs, executors, administrators, successors, legal representatives, and assigns.

9. **Modifications; Assignability**. Neither this Subscription Agreement nor any provision hereof shall be waived, modified, discharged or terminated except by an instrument in writing signed by both the Subscriber and the Company. This Subscription Agreement is not assignable by the Subscriber without the written consent of the Company.

10. **Counterparts**. This Subscription Agreement may be executed through the use of separate signature pages or in any number of counterparts, and each of such counterparts shall, for all purposes, constitute one agreement binding on all parties.

11. **Entire Agreement**. This Subscription Agreement contains the entire agreement of the parties with respect to the subject matter hereof and there are no representations, covenants or other agreements except as stated or referred to herein.

12. **Severability**. The invalidity, illegality or unenforceability of any provision of this Subscription Agreement shall not affect the validity, legality or enforceability of the remaining provisions of this Agreement, which shall continue to be valid and enforceable. In the event any provision of this Agreement is held to be invalid, illegal or unenforceable as written, but valid, legal and enforceable if modified, then such provision shall be deemed to be amended to such extent as shall be necessary for such provision to be valid, legal and enforceable and it shall be enforced to that extent.

13. **Governing Law**. This Subscription Agreement shall be construed in accordance with and governed by the laws of the State of Iowa.

[*SIGNATURE PAGE FOLLOWS*]

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

SIGNATURE PAGE

SIGNATURE OF SUBSCRIBER

Johnson Matthey Inc.

/s/ John B. Fowler, IV

By (print name): John B. Fowler, IV

Its: President

Date: May 13th 2010

Employer Identification Number: 23-0411710
(Also include Social Security Numbers if a Trust or Partnership)

Business (Residence) Address: 435 Devon Park Drive, Suite 600, Wayne, PA 19087-1998

Mailing Address (if different from above): Same

Business: Tel. No. (610) 971.3000; Facsimile No. (610) 971-3022

ACCEPTANCE:
KemPharm, Inc. hereby executes this Agreement as of the date set forth below.

/s/ Travis C. Mickle

By: Travis C. Mickle

Its: President, CSO

Date: May 17, 2010

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT D

CONFIDENTIALITY AGREEMENT

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

MUTUAL NONDISCLOSURE AND CONFIDENTIALITY AGREEMENT

This Mutual Nondisclosure and Confidentiality Agreement ("Agreement") is entered into on the 26th day of November, 2008, by and between Kempharm, INC with principal place of business at 7 Hawkeye Drive Suite 103 North Liberty, Iowa 52317 and Johnson Matthey Inc., with a place of business at 2003 Nolte Drive West Deptford, NJ 08066.

WHEREAS, one party ("Disclosing Party") possesses certain confidential proprietary information and in connection with the pursuit, evaluation and/or feasibility of a business relationship, and/or the consummation of a transaction between the parties (collectively, the "Business Purposes"), Disclosing Party's confidential proprietary information has and will become available or disclosed to the other party ("Receiving Party"); and

WHEREAS, Disclosing Party desires to prevent the unauthorized use and disclosure of its confidential proprietary information;

NOW, THEREFORE, in consideration of the mutual covenants set forth herein, and for other good and valuable consideration, the receipt, adequacy and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. **CONFIDENTIAL INFORMATION**. Confidential Information shall mean information identified on all strategic and development plans, financial information, business plans, co-developer identities, business relationships, data, business records, customer lists, project records, market reports, employee lists, business manuals, policies, procedures, information relating to processes and techniques, technology, research, development, trade secrets, know-how, discoveries, ideas, concepts, specifications, equipment, systems, diagrams, inventions, technical and statistical data, designs, drawings, models, flow charts, manufacture, purchasing, accounting, engineering, products, marketing, merchandising, pricing, selling, distribution, invention disclosures, patents, patent applications, chemical and molecular structures, synthetic pathways, biological data, safety data, clinical data, developmental data, development route, manufacturing processes, synthetic techniques, analytical data, and any and all other information which may be disclosed, whether or not in writing, marked as "Confidential" or "Proprietary" by the Disclosing Party or to which the Receiving Party may be provided access to by Disclosing Party in accordance with this Agreement, or which is generated or learned as a result of or in connection with the Business Purposes, and is not generally available to the public.

2. **NON-DISCLOSURE OBLIGATIONS**. Receiving Party acknowledges that Confidential Information will be disclosed to it by Disclosing Party and that such Confidential Information, and any information related thereto disclosed before, during, or after the Business Purposes, is confidential, proprietary, substantial and valuable to Disclosing Party, and that the unlawful use or disclosure of such Confidential Information will cause irreparable damage and financial loss to Disclosing Party. Receiving Party promises and agrees to receive and use reasonable efforts to hold Confidential Information in confidence. Without limiting the generality of the foregoing, Receiving Party further promises and agrees: (a) to protect and safeguard the Confidential Information against unauthorized use, publication or disclosure; (b) not to use any of the Confidential Information except for the Business Purposes; (c) not to, directly or indirectly, in any way, reveal, report, publish, disclose, transfer or otherwise use any of the Confidential Information except as specifically authorized in writing by Disclosing Party in accordance with this Agreement or the Business Purposes; (d) not to use any Confidential Information to unfairly compete or obtain an unfair advantage vis-a-vis Disclosing Party in any commercial activity which may be comparable to the commercial activity contemplated by the parties in connection with the Business Purposes; (e) to restrict access to the Confidential Information to those who clearly need such access to carry out the Business Purposes after an agreement is signed signifying their assent to comply with the provisions of this Agreement; (f) to advise each of the persons to whom it provides access to any of the Confidential Information that such persons are strictly prohibited from making any use, publishing or otherwise disclosing to others, or permitting others to use for their benefit or to the detriment of Disclosing Party, any of the Confidential Information, and upon request of Disclosing Party, to provide Disclosing Party with a copy of written agreement to that effect signed by such persons; and (g) to comply with any other reasonable security measures requested in writing by Disclosing Party.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

3. **EXCEPTIONS**. Confidentiality obligations hereunder shall not apply to any Confidential Information which: (a) is or later becomes generally available to the public without breach of any express or implied obligation of confidentiality by the Receiving Party; (b) written evidence shows Confidential Information is in the possession of Receiving Party with the full right to disclose prior to its receipt from Disclosing Party; (c) is later acquired by the Receiving Party from a third party without any restriction on disclosure or breach of an express or implied obligation of confidentiality; (d) Receiving Party can document in writing that Receiving Party independently created such information without reference or use of Confidential Information; or (e) is ordered to be disclosed pursuant to a court order or governmental agency order which has competent jurisdiction over the parties; provided, however, that Disclosing Party is first given notice and a reasonable opportunity to object to such disclosure or seek a protective order.

4. **RETURN OF CONFIDENTIAL INFORMATION**. Receiving Party agrees, upon termination of the Business Purposes or upon the written request of Disclosing Party, whichever is earlier, to promptly deliver to Disclosing Party all originals, copies, records, notes, memoranda or similar repositories of information and any other written, printed, or tangible materials in the possession of Receiving Party, embodying, pertaining to or referencing the Confidential Information and to destroy and make permanently irretrievable any and all electronic, optical or digital copies, including back-up and archive copies, in the possession of Receiving Party, embodying, pertaining to or referencing the Confidential Information, with the exception that the Receiving Party can retain one copy of all Confidential Information for legal purposes, and to have an officer of Receiving Party certify in writing that Receiving Party has complied with this Section 4.

5. **NO RIGHT TO CONFIDENTIAL INFORMATION**. Receiving Party hereby agrees and acknowledges that no license, either express or implied, is herein granted to the Receiving Party by Disclosing Party to use any of the Confidential Information except as authorized hereunder. Receiving Party further agrees that all copyrightable works and designs, relating to methods, compositions, or products of Disclosing Party directly or indirectly resulting from or relating to the Confidential Information or Business Purposes and the right to market, use, license and franchise Confidential Information or the ideas, concepts, methods or practices embodied therein shall be the exclusive property of Disclosing Party, and Receiving Party has no right or title thereto and hereby assigns its entire right, title and interest in, to and under the foregoing to Disclosing Party.

6. **REMEDIES**. Receiving Party understands and acknowledges that the actual or threatened disclosure or misappropriation, of any of the Confidential Information in violation of this Agreement may cause Disclosing Party irreparable harm, the amount of which may be difficult to ascertain and, therefore, agrees that Disclosing Party shall have the right to apply to a court of competent jurisdiction for an order restraining any such further disclosure or misappropriation and for other such relief as Disclosing Party may deem appropriate. Such right of Disclosing Party shall be in addition to remedies otherwise available to the Disclosing Party at law or in equity, including reasonable attorneys' fees incurred in enforcing the provisions of this Agreement.

7. **OBLIGATION TO NEGOTIATE**. Nothing in this Agreement requires either party to enter into any other agreement, and unless and until a complete and definitive agreement is negotiated, agreed, executed and delivered by the parties, neither party will be under any legal obligation of any kind whatsoever with respect to the Business Purposes being explored by the parties, except for the matters specifically agreed to in this Agreement.

8. **TERM AND TERMINATION**. This Agreement shall commence on the date first written above. Receiving Party's right to use the Confidential Information in connection with the Business Purposes shall continue in effect until the 26th day of November, 2011, or until Disclosing Party provides Receiving Party with written notice of termination of such right, whichever is earlier. Notwithstanding the foregoing, Receiving Party's obligation with respect to the Confidential Information hereunder shall continue in full force and effect for [*] years from the date of last disclosure or termination of this Agreement, which ever is later.

10. **GENERAL PROVISIONS**:

10.1 **Successors and Assigns**. Receiving Party shall have no right to assign its rights under this Agreement, whether expressly or by merger, acquisition or by operation of law, without the written consent of Disclosing Party. This Agreement and Receiving Party's obligations hereunder shall be binding on representatives, permitted assigns, and successors of Receiving Party and shall inure to the benefit of the representatives, assigns and successors of Disclosing Party.

10.2 **Governing Law**. This Agreement shall be construed and enforced in accordance with the procedural and substantive laws of the State of New York, without regard to its conflicts of laws provisions.

10.3 **Severability, Reform and Waiver**. If any provision of this Agreement is determined to be void, invalid or unenforceable, the remainder shall be unaffected and shall be enforceable as if the void, invalid or unenforceable part was not a provision of the Agreement. No waiver by any party of any breach of any provision hereof shall constitute a waiver of any other breach of that or any other provision hereof.

10.4 **Notice**. Any notice or communication required or permitted to be given hereunder may be delivered by hand, deposited with an overnight courier, sent by confirmed email, confirmed facsimile, or mailed by registered or certified mail, return receipt requested, postage prepaid, in each case to the address of the receiving party as listed above or at such other address as may hereafter be furnished in writing by either party to the other party. Such notice will be deemed to have been given as of the date it is hand delivered, emailed, faxed or three (3) day after deposit in the U.S. Mails.

10.5 **Entire Agreement**. This Agreement supersedes and replaces all former agreements or understandings, oral or written, between the parties regarding the subject matter hereof. This Agreement may not be modified except by a writing signed both by parties.

10.6 **Effect of Headings**. Headings to sections and paragraphs of this Agreement are for reference only, and do not form a part of this Agreement, or effect the interpretation of this Agreement.

10.7 **Counterparts**. This Agreement may be executed in counterparts, each of which shall be deemed an original, but together shall constitute one and the same agreement. Facsimile signatures shall be considered original signatures.

IN WITNESS WHEREOF, the parties have entered into this Agreement as of the date written above.

KEMPHARM, INC.

/s/ Travis Mickle 12/16/08

Travis Mickle, President, CEO Date

Johnson Matthey, Inc.

/s/ John B. Fowler, IV 12/18/08

Travis Mickle, President, CEO Date

John B. Fowler, IV

Print Name and Title

Initials: JBF

FACILITY AGREEMENT

FACILITY AGREEMENT (this "Agreement"), dated as of June 2, 2014, between KemPharm, Inc., a Delaware corporation (the "Borrower" or a "Credit Party"), and the lenders set forth on the signature page of this Agreement (the "Lenders" and, together with the Borrower, the "Parties").

W I T N E S S E T H:

WHEREAS, the Borrower wishes to borrow from the Lenders $60,000,000 for the purposes described in Article 2; and

WHEREAS, the Lenders desire to make a loan to the Borrower for such purpose,

NOW, THEREFORE, in consideration of the mutual agreements set forth herein, the Parties agree as follows:

ARTICLE 1

DEFINITIONS

Section 1.1 General Definitions. Wherever used in this Agreement, the Exhibits or the Schedules attached hereto, unless the context otherwise requires, the following terms have the following meanings:

"Additional Amounts" has the meaning set forth in Section 2.5(a).

"Affiliate" means, with respect to any Person, any other Person that directly or indirectly:

(a) controls, or is controlled by, or is under common control with, such Person; or

(b) is a general partner, controlling shareholder, or managing member of such Person.

A Person shall be deemed to be "controlled by" any other Person if such Person possesses, directly or indirectly, power to vote 15% or more of the securities (on a fully diluted basis) having ordinary voting power for the election of directors or managers or power to direct or cause the direction of the management and policies of such Person whether by contract or otherwise.

"Aggregate Accrual" has the meaning set forth in Section 2.11.

"Agreement and Plan of Merger" means the Agreement and Plan of Merger dated May 30, 2014 between the Borrower and KemPharm, Inc., an Iowa corporation.

"Agreement Date" means the date of this Agreement.

"Allocations" has the meaning set forth in Section 2.2(a).

"Applicable Laws" means all statutes, rules and regulations of any Governmental Authorities in the United States or elsewhere applicable to the Borrower or its Subsidiaries.

"Authorizations" has the meaning set forth in Section 3.1(j).

"Business Day" means a day other than a day on which commercial banks are authorized or required by law to close in the City of New York.

"Code" means the Internal Revenue Code of 1986, as amended, and any Treasury Regulations promulgated thereunder.

"Common Stock" has the meaning set forth in the Warrants.

"Competitor" means a Person whose principal business is the development and/or commercialization of drug therapies for the treatment of pain, attention deficit/hyperactivity disorder and central nervous order diseases; but shall not include any financial investment firm or collective investment vehicle that, together with Affiliates, holds less than a majority of the outstanding equity of any Competitor.

"Conversion Shares" has the meaning set forth in Section 3.1(w).

"Customary Subordination Terms" means, with respect to any subordinated Indebtedness:

(A) that no payment in respect of such subordinated Indebtedness may be made if (a) an Event of Default pursuant to Section 5.4(a) shall have occurred and is continuing, including as a result of the delivery of an acceleration notice pursuant to Section 5.4 until such acceleration notice is rescinded or the Notes have been paid in full or (b) any other Event of Default shall have occurred and be continuing and the Lenders shall have sent to Borrower a notice of default (a "Payment Blockage Notice"); provided that no more than one Payment Blockage Notice may be sent during any 365 day period and payments in respect of such Indebtedness may resume upon the earliest to occur of (i) the date on which such default is cured or waived in writing by the Lenders, (ii) 91 days after the date the Notes are paid in full, (iii) the date 179 days after the date on which the Payment Blockage Notice is received, and (iv) the date the Payment Blockage Notice is rescinded;

(B) that in the event of any voluntary or involuntary insolvency or bankruptcy proceedings, or any receivership, liquidation, reorganization or other similar proceedings in connection therewith relative to Borrower or to its property, then (a) the Lenders shall be paid in full in cash in respect of all of the Obligations, including without limitation, any interest due and payable under the Notes whether or not such interest is an allowed claim in such proceeding, before any

holder of such subordinated Indebtedness ("Holder") is entitled to receive (whether directly or indirectly), or make any demands for, any payment on account of such subordinated Indebtedness and (b) until the Obligations are paid in full in cash, any payment or distribution to which such Holder would otherwise be entitled shall be made to the Lenders;

(C) If any payment or distribution of any character by or on behalf of Borrower, whether in cash, securities or other property, in respect of such subordinated Indebtedness shall (despite these subordination provisions) be received by any Holder in violation of any provision of this definition before the Obligations shall have been paid in full in cash, such payment or distribution shall be held in trust for the benefit of, and shall be paid over to the Lenders, to the extent necessary to pay the Obligations in full in cash;

(D) Holders will not request relief from the stay except and to the extent the Lenders request and obtain relief from the stay;

(E) Such subordinated Indebtedness bears interest at a market rate; and

(F) Such additional terms as are customary for such subordinated Indebtedness, including lien subordination, standstill on remedies and with respect to waiver of any claims under Sections 506(c), 552 and 1111(b) of the Bankruptcy Code.

"Default" means any event which, at the giving of notice or lapse of time or the failure to fulfill any conditions (or any combination of the foregoing), would constitute an Event of Default.

"Disbursements" has the meaning set forth in Section 2.2(b).

"Disbursement Condition" means the Borrower shall have authorized and reserved for issuance a number of shares of Common Stock sufficient to cover the Warrant Shares, the Note Shares and the Conversion Shares (computed without regard to any limitations on the number of shares that may be issued on exercise).

"Disbursement Request" has the meaning set forth in Section 2.2(b).

"Disbursement Shares" has the meaning set forth in Section 2.10(f).

"Dollars" and the "$" sign mean the lawful currency of the United States of America.

"Equity Documents" means the collective reference to the Right of First Refusal and Co-Sale Agreement, Voting Agreement and Investors' Rights Agreement and all shareholder consents to the foregoing documents.

"Event of Default" has the meaning set forth in Section 5.4.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, including the rules and regulations promulgated thereunder.

"Existing Convertible Notes" means the Borrower's unsecured convertible notes in an original aggregate principal amount of $3,846,000 issued pursuant to that certain Subscription Agreement dated as of April 15, 2013.

"Existing Warrants" means the warrants to purchase equity securities of the Borrower issued in connection with the Existing Convertible Notes pursuant to that certain Subscription Agreement dated as of April 15, 2013.

"Excluded Taxes" mean with respect to any Lender: (a) Taxes imposed on (or measured by) such Lender's net income or net capital (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed by the United States or by the jurisdiction (or any political subdivision thereof) under the laws of which such Lender is organized or incorporated or in which its principal office is located, or in which the applicable lending office is located, or (ii) that are Other Connection Taxes; (b) any withholding Tax imposed by the United States on amounts payable to or for the account of such Lender under the laws in effect at the time such Lender (i) acquires an interest in the Loan or any other Transaction Document (other than the Warrants) or (ii) changes its lending office, except in the case of the foregoing clause (i), to the extent that such Lender acquired its interest in the Loan from a transferor that was entitled, immediately before such transfer, to receive Additional Amounts with respect to such withholding Tax, or, in the case of the foregoing clause (ii), to the extent such Lender was entitled to receive Additional Amounts with respect to such withholding Tax immediately before it changed its lending office; (c) any Taxes attributable to such Lender's failure to comply with Section 2.5(d), except to the extent that such Lender is legally unable to comply with Section 2.5(d) as a result of any change in law occurring subsequent to the date such Lender acquired its interest in the Loan, and (d) any withholding Taxes imposed by the United States on payments to such Lender under FATCA.

"FATCA" means Section 1471 through 1474 of the Code as of the Agreement Date (or any amended or successor version that is substantially comparable and not materially more onerous to comply with) and any current or future regulations or official interpretations thereof, any intergovernmental agreement between the United States and another jurisdiction facilitating the implementation thereof (or any law implementing such an intergovernmental agreement), and any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Code.

"FDA" means the U.S. Food and Drug Administration.

"FDA Acceptance" means the FDA's acceptance for review of the Borrower's NDA for KP201 for the treatment of acute pain in humans, provided that such NDA conforms, in the reasonable determination of the Lenders, to FDA's requirements for approval as informed by the advice and guidance provided to the Borrower by the FDA.

"FDA Approval" means the issuances of the FDA's approval letter enabling the Borrower to commercially promote, market, distribute and use KP201 in the United States for the treatment of acute pain in humans.

"Final Payment" means such amount as may be necessary to repay the outstanding principal amount of the Notes and any other amounts owing by the Borrower to the Lenders pursuant to the Transaction Documents.

"First Disbursement" has the meaning set forth in Section 2.1 (a).

"GAAP" means United States generally accepted accounting principles consistently applied as set forth in the opinions and pronouncements of the Accounting Principles Board and the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board (or agencies with similar functions of comparable stature and authority within the accounting profession).

"Governmental Authority" means any government, quasi-governmental agency, governmental department, ministry, cabinet, commission, board, bureau, agency, tribunal, regulatory authority, instrumentality, judicial, legislative, fiscal, or administrative or public body or entity, whether domestic or foreign, federal, state or local, having jurisdiction over the matter or matters and Person or Persons in question.

"Guaranty and Security Agreement" means the agreement so named dated as of the Closing Date between the Borrower and the Lenders pursuant to which the Borrower and any future Credit Parties will grant the Lenders a security interest in the assets specified therein to secure the Obligations.

"Indebtedness" means the following:

(i) all indebtedness for borrowed money;

(ii) all the deferred purchase price of assets or services (other than payables) which, in accordance with GAAP, would be shown to be a liability (or on the liability side of a balance sheet);

(iii) all guarantees of indebtedness;

(iv) all letters of credit issued or acceptance facilities established for the account of the Borrower, including, without duplication, all drafts drawn thereunder;

(v) all capitalized lease obligations of such Person;

(vi) all indebtedness (except pursuant to this clause (vi)) of another Person secured by any Lien on any property of the Borrower, whether or not such indebtedness has been assumed or is recourse (with the amount thereof, in the case of any such indebtedness that has not been assumed by the Borrower, being measured as the lower of (x) the fair market value of such property and (y) the amount of the indebtedness secured);

(vii) indebtedness created or arising under any conditional sale or title retention agreement.

"Indemnified Person" has the meaning set forth in Section 6.11.

"Indemnified Taxes" means, with respect to any Person, all Taxes (including Other Taxes), other than Excluded Taxes, imposed on or with respect to any payment made by Borrower to, or to the account of, such Person under any Transaction Document (other than the Warrants).

"Indemnity" has the meaning set forth in Section 6.11.

"Interest Payment Date" has the meaning set forth in Section 2.7.

"Interest Rate" means 9.75% interest per annum.

"Investors' Rights Agreement" means the Investors' Rights Agreement dated as of June 2, 2014, by and among the Borrower and the stockholders party thereto.

"IP" and "Intellectual Property" have the meaning set forth in Section 3.1(l).

"IPO" has the meaning set forth in Section 5.2(g).

"IRS" means the United States Internal Revenue Service.

"Lender" shall have the meaning set forth in the preamble to this Agreement, in addition to any transferee of a Lender's interest under this Agreement.

"Lien" means any lien, pledge, preferential arrangement, mortgage, security interest, deed of trust, charge, assignment, hypothecation, title retention, or other encumbrance on or with respect to property or interest in property having in each case the practical effect of constituting a security interest, in each case with respect to the payment of any obligation in, or from the proceeds of, any asset or revenue of any kind.

"Loan" means the loans made available by the Lenders to the Borrower pursuant to Section 2.1 or, as the context may require, the principal amount thereof from time to time outstanding.

"Loss" has the meaning set forth in Section 6.11.

"Major Transaction" has the meaning set forth in the Warrants.

"Major Transaction Notice" has the meaning set forth in Section 5.3.

"Material Adverse Effect" means a material adverse effect on (a) the business, operations, condition (financial or otherwise) or assets of the Borrower and its Subsidiaries, (b)

the validity or enforceability of any material provision of any Transaction Document, (c) ability of the Borrower to timely perform the Obligations or (d) the rights and remedies of the Lenders under any Transaction Document.

"Maximum Accrual" has the meaning set forth in Section 2.11.

"MT Date" has the meaning set forth in Section 5.3.

"NDA" means a "new drug application", as defined in the United States Food, Drug, and Cosmetic Act, as amended, and applicable FDA rules and regulations, including an application of the type described in section 505(b)(2) of the Act.

"Notes" means the Term Notes and the Senior Secured Convertible Notes.

"Note Shares" has the meaning set forth in Section 3.1(w).

"Obligations" means all obligations and liabilities (monetary or otherwise) of the Borrower arising under or in connection with the Transaction Documents.

"Organizational Documents" means the Certificate of Incorporation and By-laws each as amended to date, of the Borrower.

"Other Connection Taxes" means, with respect to any Lender, Taxes (excluding withholding Taxes imposed by the United States) imposed as a result of a present or former connection between such Lender and the jurisdiction (or any political subdivision thereof) imposing such Tax (other than a connection arising from such Lender having a security interest under, having been a party to, having enforced or having engaged in any other transaction pursuant to this Agreement or any other Transaction Document).

"Other Taxes" means any and all present or future stamp or documentary Taxes, intangible, recording, filing or similar Taxes and any excise or property Taxes arising from any payment made hereunder or from the execution, delivery, registration or enforcement of, or otherwise with respect to, any Transaction Document, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment (other than an assignment made in connection with the exercise of remedies following an Event of Default).

"Permitted Indebtedness" means the following Indebtedness:

(i) the Obligations;

(ii) Indebtedness to trade creditors in the ordinary course of business;

(iii) Indebtedness existing as of the Agreement Date and set forth on Schedule 1.1-A and paid only pursuant to the provisions of the agreements evidencing such Indebtedness set forth on such Schedule;

(iv) Indebtedness in respect of performance bonds, surety bonds, bank guaranties and similar instruments incurred in the ordinary course of business and

with respect to any letter of credit issued to Kirkwood Community College in exchange for the release of the Liens held by Kirkwood Community College on the assets of Borrower;

(v) Indebtedness owed to any Person providing workers' compensation, health, disability or other employee benefits or property, casualty or liability insurance, pursuant to reimbursement or indemnification obligations to such Person, in each case incurred in the ordinary course of business;

(vi) Indebtedness in respect of netting services, overdraft protections and other similar and customary services in connection with deposit accounts;

(vii) Indebtedness in respect of purchase money financing, capital lease obligations and equipment financing facilities covering existing and newly-acquired equipment, including for the acquisition, installation, qualification and validation of such equipment up to an aggregate amount not to exceed $250,000 at any time outstanding;

(viii) Indebtedness to employees in respect of benefit plans and employment and severance arrangements;

(ix) Indebtedness on Customary Subordination Terms in an aggregate principal amount not to exceed $20,000,000 and with a maturity not earlier than 91 days after the final maturity of the Notes incurred after (a) a Qualified IPO has closed, (b) June 30, 2016 or (c) the FDA has accepted the Borrower's NDA for KP201 for review and Borrower has delivered a Disbursement Request for the Second Disbursement and the Second Disbursement has not been effected;

(x) Indebtedness in respect of documentary letters of credit or bankers acceptances issued or created for the account of the Borrower or any Subsidiary to facilitate the purchase, shipment or storage of such inventory or goods;

(xi) Indebtedness arising from judgments or decrees not constituting an Event of Default under Section 5.4(e); and

(xii) Indebtedness on Customary Subordination Terms not otherwise permitted hereunder in an aggregate principal amount of $500,000 at any time outstanding with a maturity not earlier than 91 days after the final maturity of the Notes.

"Permitted Liens" means:

(i) Liens existing on the Agreement Date and set forth on Schedule 1.1-B;

(ii) Liens in favor of the Lenders;

(iii) Statutory and common law Liens created by operation of Applicable Law;

(iv) Liens arising in the ordinary course of business and securing obligations that are not more than 30 days overdue or are being contested in good faith by appropriate proceedings;

(v) Liens for taxes, assessments or governmental charges or levies not past due and payable or that are being contested in good faith by appropriate proceedings;

(vi) Liens arising from judgments, decrees or attachments for sums not exceeding $500,000 in circumstances not constituting an Event of Default;

(vii) Liens in favor of financial institutions arising in connection with the Borrower's and its Subsidiaries' accounts maintained in the ordinary course of business held at such institutions to secure standard fees for services charged by, but not financing made available by, such institutions;

(viii) Pledges or deposits in connection with workers' compensation, unemployment insurance and other social security legislation;

(ix) Easements, rights of way, restrictions and other similar encumbrances affecting real property which, in the aggregate, are not substantial in amount, and which do not in any case materially interfere with the conduct of the business of the applicable Person;

(x) Leases, licenses or subleases granted to others not interfering in any material respect with the business of the Borrower and its Subsidiaries;

(xi) Liens of a collection bank arising under Section 4-210 of the Uniform Commercial Code (or equivalent in foreign jurisdictions) on items in the course of collection;

(xii) Liens securing Indebtedness permitted under clause (vii) of the definition of "Permitted Indebtedness," provided that (i) such Liens exist prior to the acquisition of, or attach substantially simultaneous with, or within ninety (90) days after the, acquisition, lease, repair, improvement or construction of, such property financed or leased by such Indebtedness and (ii) such Liens do not extend to any property of Borrower other than the property (and proceeds thereof) acquired, leased or built, or the improvements or repairs, financed by such Indebtedness;

(xiii) the filing of precautionary Uniform Commercial Code financing statements (or equivalent in foreign jurisdictions) solely as a precautionary measure in connection with operating leases and consignment arrangements;

(xiv) Liens existing on property of the Borrower or any Subsidiary at the time such property is so acquired (whether or not the Indebtedness secured thereby shall have been assumed);

(xv) Liens solely on any cash earnest money deposits made by the Borrower or any Subsidiary in connection with any letter of intent or purchase agreement permitted hereunder or on any cash collateralizing the letter of credit referenced in clause (iv) of the definition of Permitted Indebtedness;

(xvi) Liens in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods;

(xvii) Liens arising out of conditional sale, title retention, consignment or similar arrangements for the sale of goods entered into by the Borrower or any Subsidiary in the ordinary course of business;

(xviii) Liens on specific items of inventory or other goods and the proceeds thereof securing the obligations of the Borrower or any Subsidiary in respect of documentary letters of credit or bankers acceptances issued or created for the account of the Borrower or any Subsidiary to facilitate the purchase, shipment or storage of such inventory or goods; and

(xix) Liens relating to Indebtedness on Customary Subordination Terms in accordance with clause (ix) of the definition of Permitted Indebtedness.

"Person" means and includes any natural person, individual, partnership, joint venture, corporation, trust, limited liability company, limited company, joint stock company, unincorporated organization, government entity or any political subdivision or agency thereof, or any other entity.

"Pro Forma Closing Date Balance Sheet" means a balance sheet of the Borrower as of the Agreement Date to give effect to the transactions contemplated by the Transaction Documents and the Equity Documents.

"Put Notice" has the meaning set forth in Section 5.3.

"Put Price" has the meaning set forth in Section 5.3.

"Qualified IPO" shall have the meaning provided therefor in the Warrant.

"Register" has the meaning set forth in Section 1.4(b).

"Required Lenders" means, at any time, Lenders, holding Loans representing more than 50% of the sum of the Loans outstanding.

"Right of First Refusal and Co-Sale Agreement" means the Right of First Refusal and Co-Sale Agreement dated as of June 2, 2014, by and among Borrower and the stockholders party thereto.

"Second Disbursement, Third Disbursement and Fourth Disbursement" have the meanings set forth in Section 2.1 (b).

"Securities Act" means the United States Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Security Agreements" means, collectively, the Guaranty and Security Agreement and each guaranty, security agreement, pledge agreement, patent and trademark security agreement and all other agreements, instruments and document executed and/or delivered by the Borrower on the Agreement Date pledging or granting a lien on all of the assets of the Borrower.

"Senior Secured Convertible Notes" means the Senior Secured Convertible Notes issued to the Lenders pursuant to Section 2.1, each of which will be in the form attached hereto as Exhibit A.

"Series D Charter Filing" means the filing with the office of the Secretary of State of the State of Delaware of the amendment and restatement of the Borrower's certificate of incorporation, which filing shall be in the form attached hereto as Exhibit B.

"Series D Preferred Stock" means the series of the preferred stock, par value $0.0001 per share, of the Borrower.

"Subsidiary or Subsidiaries" means, as to the Borrower, any entity of which securities or other ownership interests having ordinary voting power to elect a majority of the board of directors or other persons performing similar functions are at the time directly or indirectly owned by the Borrower.

"Tax Affiliate" means (a) the Borrower and its Subsidiaries and (b) any Affiliate of the Borrower with which the Borrower files or is required to file consolidated, combined or unitary Tax Returns with a Government Authority.

"Taxes" means all present or future taxes, levies, imposts, stamp or other duties, fees, assessments, deductions, withholdings, and other charges imposed by any Government Authority, and all liabilities to a Government Authority with respect thereto, including any interest, fees, additions to tax or penalties applicable thereto (including by reason of any delay in payment).

"Tax Returns" has the meaning set forth in Section 3.1(o).

"Term Notes" means the Term Notes issued to the Lenders pursuant to Section 2.1, each of which will be in the form attached hereto as Exhibit C.

"Transaction Documents" means this Agreement, the Notes, the Security Agreements and the Warrants, the Series D Charter Filing, the Agreement and Plan of Merger and any other document or instrument delivered in connection with any of the foregoing and dated the Agreement Date or subsequent thereto, whether or not specifically mentioned herein or therein.

"Warrants" has the meaning set forth in Section 2.10.

"Warrant Shares" has the meaning set forth in Section 3.1(v).

"Voting Agreement" means the Voting Agreement dated as of June 2, 2014, by and among the Borrower and the stockholders party thereto.

Section 1.2 Interpretation. In this Agreement, wherever the context may require, the singular shall include the plural and vice versa, and any pronoun shall include the corresponding masculine, feminine and neuter forms; the division of this Agreement into Articles and Sections and the use of headings and captions is for convenience of reference only and shall not modify or affect the interpretation or construction of this Agreement or any of its provisions; the words "herein," "hereof," "hereunder," "hereinafter" and "hereto" and words of similar import refer to this Agreement as a whole and not to any particular Article or Section hereof; the words "include," "including," and derivations thereof shall be deemed to have the phrase "without limitation" attached thereto unless otherwise expressly stated; references to a specified Article, Exhibit, Section or Schedule shall be construed as a reference to that specified Article, Exhibit, Section or Schedule of this Agreement; and any reference to any of the Transaction Documents or Equity Documents means such document as the same shall be amended, supplemented or modified and from time to time in effect.

Section 1.3 Business Day Adjustment. If the day by which any payment or other performance is due to be made is not a Business Day, that payment or other performance shall be made by the next succeeding Business Day unless that next succeeding Business Day falls in a different calendar month, in which case that payment or other performance shall be made by the Business Day immediately preceding the day by which such payment is due to be made.

Section 1.4 Register

(a) The Borrower shall record on its books and records the amount of the Loan, the applicable interest rate, all payments of principal and interest thereon and the principal balance thereof from time to time outstanding. Such record shall, absent manifest error, be conclusive evidence of the amount of the Loan made by the Lenders to the Borrower and the interest and payments thereon.

(b) The Borrower shall establish and maintain, at its address referred to in Section 6.1, a record of ownership (the "Register") in which the Borrower agrees to register by book entry the interests (including any rights to receive payment of principal and interest hereunder) of each Lender in the Loan and each Note, and any assignment of any such interest, and (ii) accounts in the Register in accordance with its usual practice in which it shall record (1) the names and addresses of the Lenders (and any change thereto pursuant to this Agreement), (2) the amount of the Loan and each Note and each funding of any participation therein, (3) the amount of any principal or interest due and payable or paid, and (4) any other payment received by the Lenders from the Borrower and its application to the Loan and each Note.

(c) Notwithstanding anything to the contrary contained in this Agreement, the Loan (including any Notes evidencing the Loan) is a registered obligation, the right, title and interest of the Lenders and their assignees in and to the Loan shall be transferable only upon notation of such transfer in the Register and no assignment thereof or participation therein shall be effective until recorded therein. This Section 1.4 and Section 6.5 shall be construed so that the Loan is at all times maintained in "registered form" within the meaning of Sections 163(f), 871(h)(2) and 881(c)(2) of the Code and Section 5f.103-1(c) of the United States Treasury Regulations.

(d) The Borrower and the Lenders shall treat each Person whose name is recorded in the Register as a Lender (and as the owner of the amounts owing to it under the Loan and/or a Note as reflected in the Register) for all purposes of this Agreement. Information contained in the Register with respect to any Lender shall be available for access by the Borrower or such Lender at any reasonable time and from time to time upon reasonable prior notice.

ARTICLE 2

AGREEMENT FOR THE LOAN

Section 2.1 Use of Proceeds. The proceeds of the Loan will be used for the purposes set forth on Exhibit D.

Section 2.2 Disbursement.

(a) Subject to the conditions set forth in Article 4, the Lenders shall disburse to the Borrower on the Agreement Date (the "First Disbursement") (i) aggregate term loans of $15,000,000, evidenced by a Term Note, and (ii) aggregate term loans of $10,000,000, evidenced by a Senior Secured Convertible Note, in the case of each of the foregoing, in accordance with their respective allocations set forth on Schedule 2.2 as such allocations may be revised by the Lenders from time to time (the "Allocations"). Lenders shall reserve from the First Disbursement $161,000 which, absent an Event of Default, shall be released to Borrower upon the filing of a Uniform Commercial Code termination statement with respect to the Uniform Commercial Code-1 financing statement number E120030277 filed with the Secretary of State of Iowa on April 26, 2012 naming Kirkwood Community College as the secured party.

(b) Subject to the conditions set forth in Article 4, the Lenders shall disburse to the Borrower in three additional Disbursements (the "Second Disbursement", the "Third Disbursement" and the "Fourth Disbursement" respectively and, collectively with the First Disbursement, the "Disbursements") term loans in the aggregate amount of $10,000,000 in the case of the Second Disbursement and $12,500,000 in the case of each of the Third and Fourth Disbursements each evidenced by a Term Note, upon receipt from the Borrower on a Business Day (other than the last Business Day of a month) of a written request ("Disbursement Request") and stating that no Default or Event of Default has occurred or will have occurred on the disbursement date. The disbursement date set forth in a Disbursement Request shall be a date not less than 15 Business Days after the date of receipt by the Lenders of such Disbursement Request and no earlier than the second Business Day of the month following the month in which such Disbursement Request is received. The Lenders shall fulfill each Disbursement Request in accordance with the Allocations.

Section 2.3 Payment.

(a) The Borrower shall pay to the Lenders 33-1/3% of the outstanding original principal amount of the Notes on each of the fourth and fifth anniversaries of the Agreement Date and the balance of the outstanding principal amount of the Notes on February 14, 2020. The Borrower may not prepay the Notes without the written consent of the Required Lenders.

(b) The Term Notes shall be deemed prepaid without premium, to the extent a Lender pays the Exercise Price (as such term is defined in the Warrants) through a reduction of the principal amount outstanding under such Lender's Term Note in accordance with Section 3(a)(i) of the Warrant.

(c) Each such prepayment shall be applied first, to accrued and unpaid interest and second, to principal and shall be allocated among the Lenders in accordance with the Allocations.

Section 2.4 Payments. All payments by the Borrower under any of the Transaction Documents shall be made without setoff or counterclaim. Payments of any amounts due to the Lenders under this Agreement shall be made in Dollars in immediately available funds prior to 11:00 a.m. New York City time on such date that any such payment is due, at such bank or places as the Lenders shall from time to time designate in writing at least 5 Business Days prior to the date such payment is due. The Borrower shall pay all and any costs (administrative or otherwise) imposed by banks, clearing houses, or any other financial institution, in connection with making any payments under any of the Transaction Documents, except for any costs imposed by the Lenders' banking institutions.

Section 2.5 Taxes, Duties and Fees.

(a) Any and all payments by Borrower to or for the account of a Lender under any Transaction Document shall be made, in accordance with this Section 2.5, free and clear of and without deduction for any and all present or future Taxes, except as required by applicable law. If any Indemnified Taxes are required by law to be deducted from or in respect of any sum payable under a Transaction Document, (i) the sum payable shall be increased by as much as shall be necessary so that after making all required deductions (including deductions applicable to additional sums payable under this Section 2.5) the Lender shall receive an amount equal to the sum it would have received had no such deductions been made (any and all such additional amounts payable shall hereafter be referred to as the "Additional Amounts"), (ii) the Borrower shall make such deductions, and (iii) the Borrower shall pay the full amount deducted to the relevant taxing or other authority in accordance with applicable law. Within 30 days after the date of any payment of such Taxes, the Borrower shall furnish to the applicable Lender the original or a certified copy of a receipt evidencing payment thereof or other evidence of such payment reasonably satisfactory to such Lender.

(b) In addition, Borrower agrees to pay or cause to be paid all Other Taxes. Within 30 days after the date of any payment of Other Taxes, Borrower shall furnish to the applicable Lender the original or a certified copy of a receipt evidencing payment thereof or other evidence of such payment reasonably satisfactory to such Lender.

(c) Borrower shall reimburse and indemnify, within 10 days after receipt of demand therefor, the Lender for all Indemnified Taxes (including all Taxes and Other Taxes imposed on amounts payable under this Section 2.5(c) paid by such Lender, whether or not such Indemnified Taxes were correctly or legally asserted by the relevant Government Authority. A certificate of the Lender delivered to Borrower setting forth the amount and nature of the Indemnified Taxes paid by Lender shall be conclusive, absent manifest error.

(d) Any Lender that is entitled to an exemption from, or reduction of, withholding Tax with respect to payments made under any Transaction Document shall timely deliver to Borrower such properly completed and executed documentation reasonably requested by Borrower as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender shall deliver such other documentation prescribed by applicable law as reasonably requested by Borrower as will enable Borrower to determine whether or not such Lender is subject to backup withholding or information reporting requirements and to enable Borrower to comply with such requirements. Without limiting the generality of the foregoing, each Lender, on or prior to the date of becoming a Lender hereunder (and in each case, from time to time thereafter upon the reasonable request of Borrower) will deliver to Borrower either:

(i) a duly completed IRS Form W-9 (or successor form) certifying that the Lender is a U.S. person for U.S. tax purposes and is exempt from U.S. federal backup withholding tax (provided, however, that if the Lender is a disregarded entity for U.S. federal income tax purposes it shall provide a properly completed and executed IRS Form W-9 for its owner in the appropriate manner); or

(ii) if it is not a U.S. person for U.S. federal income tax purposes and is legally entitled to do so, a properly completed and executed IRS Form W-8ECI, W-8BEN, W-8IMY or other applicable form (together with any required supporting documentation), or any other applicable certificate or document reasonably requested by the Borrower, certifying in the case of an IRS Form W-8BEN or W-8ECI the extent to which such Lender is entitled to receive payments under this Agreement at a reduced rate of, or exemption from, deduction or withholding of any U.S. withholding tax and, if such Lender is relying on the portfolio interest exception of Section 871(h) or Section 881(c) of the Code (or any successor provision thereto), shall also provide the Borrower with a certificate (the "Portfolio Interest Certificate") representing that such Lender is not a "bank" for purposes of Section 881(c) of the Code (or any successor provision thereto), is not a 10% holder of the Borrower described in Section 871(h)(3)(B) of the Code (or any successor provision thereto), and is not a controlled foreign corporation receiving interest from a related person (within the meaning of Sections 881(c)(3)(C) and 864(d)(4) of the Code, or any successor provisions thereto); and

(iii) each Lender that delivers to Borrower an IRS Form W-9, W-8BEN, W-8ECI, or W-8IMY or other document pursuant to this Section 2.5(d) further undertakes to deliver to Borrower further copies of the said letter and IRS FormW-8BEN, W-8ECI, W-8IMY or successor applicable forms, or other manner of certification, as the case may be within a reasonable time after gaining knowledge of the occurrence of any event requiring a change in the most recent letter and forms previously delivered by it to Borrower, and such extensions or renewals thereof as may reasonably be requested by Borrower.

(e) If a Lender determines in good faith that it has received a refund from a Government Authority of Taxes in respect of which the Borrower paid Additional Amounts or made a payment pursuant to Section 2.5(b) or Section 2.5(c), such Lender shall promptly pay such refund (limited to the amount of indemnity payments including Additional Amounts made by Borrower under this Section 2.5 with respect to the Taxes refunded) to the Borrower, net of all out-of-pocket expense (including any Taxes imposed thereon) of such Lender incurred in obtaining such refund, provided that the Borrower, upon the request of such Lender, agrees to repay the amount paid over to the Borrower (plus any penalties, interest or other charges imposed by the relevant Government Authority) to such Lender if such Lender is required to repay such refund to such Government Authority and provides written evidence thereof to the Borrower. Nothing in this Section shall require any Lender to disclose any information it deems confidential (including, without limitation, its Tax returns) to any Person, including Borrower.

(f) If a payment made to a Lender hereunder or under such Note would be subject to withholding Tax imposed by FATCA if such Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), then such Lender shall deliver to the Borrower at the time or times prescribed by law and at such time or times reasonably requested by the Borrower such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Borrower as may be necessary for the Borrower to comply with its obligations under FATCA and to determine that such Lender has complied with such Lender's obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this Section 2.5(f), "FACTA" shall include any amendments made to FATCA after the Agreement Date.

(g) If the Borrower is required to pay any Indemnified Taxes or additional amounts to any Lender or Government Authority for the account of any Lender pursuant to any of Section 2.5(a) through Section 2.5(c), then such Lender shall at the request of the Borrower use commercially reasonable efforts to mitigate the effect of any such event by completing and delivering or filing any Tax-related forms or other documents that the Lender determines it is lawfully able to deliver, that would establish the Lender's eligibility for a reduction or elimination of any amount of Taxes required to be deducted or withheld or paid by the Borrower hereunder, unless the Lender determines that such completion, delivery or filing would subject such Lender to any significant unreimbursed cost or loss or would prejudice the legal, commercial or tax position of such Lender.

Section 2.6 Costs, Expenses and Losses. If, as a result of any failure by the Borrower to pay any sums due under this Agreement on the due date therefor (after the expiration of any

applicable grace periods), the Lenders shall incur costs, expenses and/or losses, by reason of the liquidation or redeployment of deposits from third parties or in connection with obtaining funds to make a Disbursement, the Borrower shall pay to the Lenders upon request by the Lenders, the amount of such costs, expenses and/or losses within 15 Business Days after receipt by it of a certificate from the Lenders setting forth in reasonable detail such costs, expenses and/or losses, along with supporting documentation. For the purposes of the preceding sentence, "costs, expenses and/or losses" shall include, without limitation, any interest paid or payable to carry any unpaid amount and any loss, premium, penalty or expense which may be incurred in obtaining, liquidating or employing deposits of or borrowings from third parties in order to make, maintain or fund the Loan or any portion thereof.

Section 2.7 Interest.

(a) The outstanding principal amount of the Notes shall bear interest at the Interest Rate (calculated on the basis of the actual number of days elapsed in each month). Except as set forth in subsection (b) below, accrued interest shall first be paid in arrears on July 1, 2014 and thereafter quarterly in arrears on the first Business Day of each , October, January, April and July thereafter (each, an "Interest Payment Date").

(b) Upon notice from the Borrower to the Lenders prior to any of the first eight Interest Payment Dates, interest otherwise payable on such Interest Payment Date shall not be paid but shall be added to the then outstanding principal amount of the Loans (the aggregate amount of such interest added to principal and all interest accruing thereon, the "Accrued Interest Amount"). The Accrued Interest Amount shall be paid on July 1, 2016.

Section 2.8 Interest on Late Payments. Without limiting the remedies available to the Lenders under the Transaction Documents or otherwise, to the maximum extent permitted by Applicable Laws, if the Borrower fails to make a required payment of principal or interest with respect to the Notes when due, the Borrower shall pay on demand, in respect of such unpaid principal and interest, interest at the rate per annum equal to the Interest Rate plus 10% for so long as such payment remains outstanding.

Section 2.9 Expense Reimbursement. The Borrower shall reimburse the Lenders for their reasonable and documented out-of-pocket expenses, including the reasonable and documented out-of-pocket legal fees and costs, incurred in connection with the transactions contemplated by the Transaction Documents and the Equity Documents in the maximum amount not to exceed $365,000.

Section 2.10 Delivery of Warrants.

(a) On the date hereof, the Borrower shall issue to the Lenders warrants to purchase an aggregate of 14,423,076 shares of Series D Preferred Stock in substantially the form set forth on Exhibit E hereto (together with any Warrants issuable pursuant to subsections (b) and (c) below, the "Warrants") at an initial Exercise Price of $0.78 and an expiration date of June 2, 2024.

(b) Upon the Lenders effecting the Second Disbursement the Borrower shall issue to the Lenders warrants to purchase an aggregate of 9,615,385 "Warrant Shares" (as

defined in the Warrants) in substantially the form set forth on Exhibit E hereto at an initial Exercise Price of $0.78 and an expiration date that is on the ten (10) year anniversary of the date of the Second Disbursement.

(c) Upon the Lenders effecting each of the Third Disbursement and the Fourth Disbursement, the Borrower shall issue to the Lenders warrants to purchase a number of Warrant Shares equal to (i) 60% of the amount of the Third Disbursement or the Fourth Disbursement, as the case may be, divided by (ii) the Subsequent Warrant Exercise Price, in substantially the form set forth on Exhibit E hereto at an initial exercise price of the Subsequent Warrant Exercise Price and an expiration date of the ten (10) year anniversary of the date of the Third Disbursement.

(d) Notwithstanding anything herein to the contrary, the number of Warrant Shares into which the Warrants to be issued pursuant to Section 2.10(b) and (c) are exercisable and the Subsequent Warrant Exercise Price thereof on the issue date shall be adjusted to reflect any adjustments in the number of Warrant Shares into which such Warrant is exercisable that would have taken effect pursuant to the terms of such Warrant had such Warrant been issued on the date hereof and remained outstanding through the date of such issuance.

(e) "Subsequent Warrant Exercise Price" means an amount equal to (i) prior to an IPO, (x) $75,000,000, divided by (y) the number of shares of Common Stock then outstanding (on a fully-diluted basis assuming the exercise of all outstanding options and warrants, the conversion of all convertible securities and the conversion of all shares of capital stock of the Borrower into shares of Common Stock) and (ii) from an after the consummation of an IPO, 115% of the Volume Weighted Average Prices for the Borrower's Common Stock for the twenty (20) consecutive Trading Day period prior to the date of the Third Disbursement or the Fourth Disbursement, as the case may be.

"Volume Weighted Average Price" means the volume weighted average sale price between 9:30 am and 4:00 New York City Time of such security on the principal securities exchange, trading market or quotation system where such security is listed or traded as reported by Bloomberg Financial Markets or an equivalent, reliable reporting service ("Bloomberg") mutually acceptable to and hereafter designated by the Required Lenders and the Borrower or, if no volume weighted average sale price is reported for such security, then the last closing trade price of such security as reported by Bloomberg, or, if no last closing trade price is reported for such security by Bloomberg, the average of the bid prices of any market makers for such security that are listed in the over the counter market by the Financial Industry Regulatory Authority, Inc. or on the "over the counter" Bulletin Board (or any successor) or in the "pink sheets" (or any successor) by the OTC Markets Group, Inc. (collectively, the "OTC Market"). If the Volume Weighted Average Price cannot be calculated for such security on such date in the manner provided above, the volume weighted average price shall be the fair market value as mutually determined by the Borrower and the Required Lenders.

"Trading Day" means any day on which the Common Stock is traded for at least two hours on the principal securities exchange, trading market or quotation system on which the shares of Common Stock are then traded, quoted or listed.

(f) On the date of the First Disbursement, the Borrower shall issue to the Lenders 1,923,077 shares of Series D Preferred Stock (the "Disbursement Shares") valued at $0.78 per share in consideration for making the Loans contemplated under this Agreement.

Section 2.11 Applicable High Yield Discount Obligation Mandatory Prepayment. On any Interest Payment Date following the fifth anniversary of the First Disbursement, if the aggregate amounts which would be includible in gross income of the Lenders with respect to such Loans for all periods ending on or before such Interest Payment Date (within the meaning of section 163(i) of the Code) (the "Aggregate Accrual"), would exceed an amount equal to the sum of (x) the aggregate amount of interest to be paid in cash (within the meaning of section 163(i) of the Code) under the Loans on or before such Interest Payment Date (determined without regard to the amounts payable on such Interest Payment Date under this Section 2.11), and (y) the product of (A) the issue price (as defined in sections 1273(b) and 1274(a) of the Code) of the Loans and (B) the yield to maturity (interpreted in accordance with section 163(i) of the Code) of the Loans (such sum, the "Maximum Accrual"), then the Borrower shall mandatorily pay to the Lenders ratably in cash, on each Interest Payment Date following the fifth anniversary of the First Disbursement, an amount equal to the excess, if any, of the Aggregate Accrual over the Maximum Accrual and the amount of such payment shall be treated for purposes of section 163(i) of the Code as interest paid on the Loans. The Borrower shall consult with the Lenders regarding the calculation of the Aggregate Accrual and the Maximum Accrual and such calculations shall be subject to the reasonable approval of the Lenders. Each accrual period with respect to the Loans shall end on an Interest Payment Date. Notwithstanding anything to the contrary contained herein, all payments of principal, premium and interest due from the Borrower hereunder shall be made to the Lenders on an equal and ratable basis. All Loans which have been prepaid may not be reborrowed.

ARTICLE 3

REPRESENTATIONS AND WARRANTIES

Section 3.1 Representations and Warranties of the Borrower. The Borrower represents and warrants to the Lenders that, except as set forth on the Schedules attached to this Agreement:

(a) The Borrower is conducting its business in compliance in all material respects with its Organizational Documents, which are in full force and effect.

(b) No Default or Event of Default has occurred under any of the Transaction Documents.

(c) The Borrower (i) after the Disbursements and the consummation of the transactions contemplated by the Equity Documents will be capable of paying its debts as they fall due, and neither will be unable nor will have admitted its inability to pay its debts as they fall due, (ii) is not bankrupt and will not be insolvent and (iii) has not taken action, and no such action has been taken by a third party, for the winding up, dissolution, or liquidation of its business or similar executory or judicial proceeding or for the appointment of a liquidator, custodian, receiver, trustee, administrator or other similar officer for the Borrower or any or all of its assets or revenues.

(d) The obligation of the Borrower to make any payment under the Transaction Documents (together with all charges in connection therewith) is absolute and unconditional, and there exists no right of setoff or recoupment, counterclaim, cross-claim or defense of any nature whatsoever to any such payment.

(e) No Indebtedness of the Borrower exists other than Permitted Indebtedness.

(f) The Borrower is validly existing and in good standing under the laws of the state of Delaware. The Borrower has full power and authority to own its properties and conduct its business as now conducted and currently contemplated, and is duly qualified to do business as a foreign entity and is in good standing (or equivalent concept) in each jurisdiction in which the conduct of its business makes such qualification necessary and in which the failure to so qualify could reasonably be expected to have a Material Adverse Effect.

(g) There is not pending or, to the knowledge of the Borrower, threatened, any action, suit or other proceeding before any Governmental Authority (a) to which the Borrower is a party or (b) which has as the subject thereof any assets owned by the Borrower, and, except as set forth on Schedule 3.1(g) Borrower is not a party to any litigation or arbitration proceedings, and there are no current or, to the knowledge of the Borrower, pending, legal, governmental or regulatory enforcement actions, suits or other proceedings to which the Borrower or any of its assets is subject that, in each case, could reasonably be expected to have a Material Adverse Effect.

(h) The Transaction Documents and the Equity Documents have been duly authorized, executed and delivered by the Borrower, and constitute the valid, legal and binding obligation of the Borrower enforceable in accordance with their terms and, in the case of the Equity Documents, to the best of Borrower's knowledge the other parties thereto other than the Lender, except as such enforceability may be limited (i) by applicable insolvency, bankruptcy, reorganization, moratorium or other similar laws affecting creditors' rights generally, and (ii) by applicable equitable principles (whether considered in a proceeding at law or in equity). The execution, delivery and performance of the Transaction Documents and the Equity Documents by the Borrower and the consummation of the transactions therein contemplated (including, without limitation, the issuance of Series D Preferred Stock and the exercise of conversion of the foregoing securities) will not (A) conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, or result in the creation or imposition of any Lien (other than Permitted Liens) upon any assets of the Borrower pursuant to any agreement to which the Borrower is a party or by which the Borrower is bound or to which any of the assets of the Borrower are subject, (B) result in any violation of or conflict with the provisions of its Organizational Documents or (C) result in the violation of any Applicable Law or any judgment, order, rule, regulation or decree of any Governmental Authority. Except for the Series D Charter Filing and filings pursuant to Regulation D of the Securities Act and applicable state securities laws, which have been made or will be made in a timely manner, no consent, approval, authorization or order of, or registration or filing with, any Government Authority is required for the execution, delivery and performance of any of the Transaction Documents or for the

consummation by the Borrower of the transactions contemplated thereby except for such registrations and filings in connection with the issuance of the Warrants and Warrant Shares pursuant to the Transaction Documents that are necessary to comply with federal and state securities laws, rules and regulations, and filings contemplated by the Guaranty and Security Agreement and the Borrower has the entity power and authority to enter into the Transaction Documents and to consummate the transactions contemplated under the Transaction Documents.

(i) Other than Authorizations, approvals and consents that have been obtained, no authorization, approval or consent is required for (i) the execution and delivery of this Agreement, the other Transaction Documents, and the Warrants, or (ii) the consummation of the transactions contemplated hereby and thereby, including but not limited to the Series D Charter filing, the Agreement and Plan of Merger, the issuance and exercise of the Warrants and the issuance and conversion of the Convertible Notes and Series D Preferred Stock issuable hereunder and of the Disbursement Shares.

(j) The Borrower holds, and is operating in good standing and in compliance in all material respects with, all franchises, grants, authorizations, licenses, permits, easements, consents, certificates and orders of any Governmental Authority (collectively, "Authorizations") required for the conduct of its business as now conducted and currently contemplated and all Authorizations are valid and in full force and effect; and the Borrower has not received written notice of any revocation or modification of any Authorization, and no condition exists or event has occurred which, in itself or with the giving of notice of lapse of time or both, would result in any such Authorization not being renewed in the ordinary course; and the Borrower is in compliance in all material respects with Applicable Law.

(k) The Borrower has good and marketable title to all of its assets necessary for or used in its business, free and clear of all Liens except Permitted Liens. The property held under lease by the Borrower is held under valid, subsisting and enforceable leases with only such exceptions with respect to any particular lease as do not interfere in any material respect with the conduct of the business of the Borrower.

(l) The Borrower owns or has the right to use pursuant to a valid and enforceable written license, implied license or other legally enforceable right all of the Intellectual Property (as defined below) that is necessary for the conduct of its business as currently now conducted (the "IP"). The IP that is registered with or issued by a Governmental Authority is valid and enforceable; there is no outstanding pending or threatened action, suit, other proceeding or claim by any third person challenging or contesting (i) the Borrower's ownership or use of or other rights in any IP, and (ii) the validity, scope, or enforceability of any IP owned by the Borrower, and the Borrower has not received any written notice regarding any such action, suit, or other proceeding. To its knowledge, the Borrower's business as conducted by it does not and has not infringed, and Borrower has not misappropriated, any valid Intellectual Property rights of others. There is no pending or, to the knowledge of the Borrower, threatened action, suit, other proceeding or claim by others that Borrower's business as conducted by it infringes upon, violates or misuses the Intellectual Property rights of others without authorization, and Borrower has not received any written notice regarding any such action, suit, other proceeding or claim. Except as set forth on Schedule 3.1(l), Borrower is not a party to or bound by any option, license or agreement with respect to IP. The term "Intellectual Property"

as used herein means (i) all patents, patent applications, patent disclosures and inventions (whether patentable or unpatentable and whether or not reduced to practice), (ii) all trademarks, service marks, trade dress, trade names, slogans, logos, and corporate names and Internet domain names, together with all of the goodwill associated with each of the foregoing, (iii) copyrights, copyrightable works, and licenses, (iv) registrations and applications for registration for any of the foregoing, (v) computer software (including but not limited to source code and object code), data, databases, and documentation thereof, (vi) trade secrets and other confidential information, (vii) other intellectual property, and (viii) copies and tangible embodiments of the foregoing (in whatever form and medium).

(m) The Borrower is not in breach of or otherwise in default under, and no event has occurred which, with notice or lapse of time or both, would constitute such breach or other default in the performance of any agreement or condition contained in any agreement under which the Borrower is bound, or to which any of its assets is subject.

(n) The Borrower has made available to Lenders all material correspondence with Government Authorities for the past three years, and all adverse event reports with respect to KP201, KP303, KP415 and KP511 (collectively, the "Products") and all requested documents related to the Products, in each case in the possession and control of the Borrower. To its knowledge, the Borrower has not withheld any document or information with respect the Products that would reasonably be considered to be material to Lender's decision to make the disbursements contemplated hereunder. The Borrower has not received any notice citing action or inaction by the Borrower that, to its knowledge, would constitute any non-compliance with any Applicable Laws or standards, which would reasonably be expected to result in a Material Adverse Effect. To the knowledge of the Borrower, the studies, tests and preclinical and clinical trials conducted relating to the Products have been conducted in all material respects in accordance with experimental protocols, procedures and controls pursuant to, where applicable, accepted professional and scientific standards at the time when conducted; the descriptions of the results of such studies, tests and trials provided to the Borrower are accurate in all material respects; and the Borrower has not received any notices or correspondence from any Government Authority requiring the termination, suspension, material modification or clinical hold of any such studies, tests or preclinical or clinical trials conducted by or on behalf of the Borrower.

(o) All federal, and all material state, local and foreign tax returns, including informational returns and including amendments to any of the foregoing, filed or required to be filed with a Government Authority with respect to Taxes (collectively, the "Tax Returns") required to be filed by any Tax Affiliates have been filed with the appropriate Government Authorities, or timely extensions have been obtained, and all such Tax Returns are true and correct in all material respects, and all Taxes reflected therein and all other material Taxes otherwise due and payable have, in each case, been paid prior to the date on which any liability may be added thereto for non-payment thereof, except for those contested in good faith by appropriate proceedings for which adequate reserves are maintained on the books of the appropriate Tax Affiliate in accordance with GAAP. As of the Agreement Date, no material Tax Return of the Borrower is under audit or examination by any Government Authority, and no notice of any audit or examination or any assertion of any material claim for Taxes has been given or made in writing to the Borrower by any Government Authority, which claim has not

been resolved. Each Tax Affiliate has properly withheld all material amounts required to be withheld by such Tax Affiliate from its respective employees for all periods in full and complete compliance with the Tax, social security and unemployment withholding provisions of applicable law and such withholdings have been paid to the respective Government Authorities. No Tax Affiliate has participated in a "reportable transaction" within the meaning of Treasury Regulation Section 1.6011-4(b) or has been a member of an affiliated, combined or unitary group other than the group of which a Tax Affiliate is the common parent. No written claim has been made by a Government Authority in a jurisdiction where the Tax Affiliates do not file Tax Returns that they (or any of them) may be subject to taxation by, or required to file any Tax Return in, that jurisdiction.

(p) Except as set forth on Schedule 3.1(p), the Borrower has not granted rights to develop, market license or sell its products, services or Intellectual Property to any other Person and the Borrower is not bound by any agreement that affects the exclusive right of the Borrower to develop, manufacture, produce, assemble, distribute, license, market or sell its products, services or Intellectual Property.

(q) The Borrower: (A) has at all times complied in all material respects with Applicable Law; (B) has not received any warning letter or other correspondence or notice from the FDA or from any other Governmental Authority alleging or asserting noncompliance with Applicable Laws to the extent that such noncompliance could reasonably be expected to result in a Material Adverse Effect; (C) has no knowledge of any act, omission, event or circumstance that would reasonably be expected to give rise to or lead to any civil, criminal or administrative action, suit, demand, claim, complaint, hearing, investigation, demand letter, warning letter, proceeding or request for information by the FDA or any other Government Authority against the Borrower and the Borrower has no liability (whether actual or contingent) for failure to comply with any Applicable Laws; (D) has, to its knowledge, filed, obtained, maintained or submitted all reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required to be filed, obtained, maintained or submitted with, from or to the FDA pursuant to Applicable Laws; and (E) there is no false or misleading information or material omission in any of its submissions to the FDA or any other Government Authority that could reasonably be expected to result in a Material Adverse Effect.

(r) The unaudited financial statements of the Borrower for the fiscal year ended 2013 and the month ended March 31, 2014 attached hereto on Schedule 3.1(r), together with the Company's audited income statement and statement of cash flows for the fiscal year ended 2012, together with the related notes, fairly present in all material respects the financial condition of the Borrower as of the dates indicated and the results of operations and changes in cash flows for the periods therein specified in conformity with GAAP in the United States, or the generally accepted accounting principles of any other applicable jurisdiction, consistently applied throughout the periods involved, except as otherwise set forth on Schedule 3.1(r). No Material Adverse Effect has occurred since the date of such financial statements and except as disclosed in such financial statements, Borrower has no material liabilities. The Borrower has no Subsidiaries that are not consolidated on the Borrower's financial statements.

(s) Except as set forth on Schedule 3.1(s), no agent, broker, investment banker or other Person acting on behalf of Borrower, or under the authority thereof, is or will be

entitled to any brokers' or finders' fee or any other commission or similar fee directly or indirectly from any of the Parties hereto in connection with any of the transactions contemplated hereby.

(t) (i) To the knowledge of the Borrower, no "prohibited transaction" as defined under Section 406 of ERISA or Section 4975 of the Code, or any individual or class exemption issued and not exempt under ERISA Section 408 and the regulations and published interpretations thereunder or under any applicable prohibited transaction, individual or class exemption issued by the Department of Labor, has occurred with respect to any Employee Benefit Plan, except as for such transaction would not have a Material Adverse Effect, (ii) at no time within the last seven (7) years has the Borrower or any ERISA Affiliate maintained, sponsored, participated in or contributed to, or has or had any liability or obligation in respect of, any Employee Benefit Plan subject to Section 302 of ERISA, Title IV of ERISA, or Section 412 of the Code or any "multiemployer plan" as defined in Section 3(37) of ERISA or any multiple employer plan for which the Borrower or any ERISA Affiliate has incurred or could incur liability under Section 4063 or 4064 of ERISA, (iii) no Employee Benefit Plan represents any current or future liability for retiree health, life insurance, or other retiree welfare benefits except as may be required by the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, or similar state law, (iv) each Employee Benefit Plan is and has been operated in compliance with its terms and all applicable laws, including but not limited to ERISA and the Code, except for such failures to comply that would not have a Material Adverse Effect, (v) no event has occurred (including a "reportable event" as such term is defined in Section 4043 of ERISA) and no condition exists that would subject the Borrower or any ERISA Affiliate to any Tax, fine, lien, penalty or liability imposed by ERISA, the Code or other applicable law, except for any such Tax, fine, lien, penalty or liability that would not, individually or in the aggregate, have a Material Adverse Effect, (vi) the Borrower does not maintain any Foreign Benefit Plan, and (vii) the Borrower does not have any obligations under any collective bargaining agreement. As used in this Section 3.1(t), "Employee Benefit Plan" means any material "employee benefit plan" within the meaning of Section 3(3) of ERISA, including, without limitation, all stock purchase, stock option, stock based severance, employment, change in control, medical, disability, fringe benefit, bonus, incentive, deferred compensation, employee loan and all other employee benefit plans, agreements, programs, policies or other arrangements, whether or not subject to ERISA, under which (A) any current or former employee, director or independent contractor of the Borrower or any of its Subsidiaries has any present or future right to benefits and which are contributed to, sponsored by or maintained by the Borrower or any of its respective Subsidiaries or (B) the Borrower or any of its Subsidiaries has had or has any present or future obligation or liability; "ERISA" means the Employee Retirement Income Security Act of 1974, as amended; "ERISA Affiliate" means any member of the Borrower's controlled group as defined in Code Section 414 (b), (c), (m) or (o); and "Foreign Benefit Plan" means any Employee Benefit Plan established, maintained or contributed to outside of the United States of America or which covers any employee working or residing outside of the United States.

(u) As of the Agreement Date, except as set forth on Schedule 3.1(u), the Borrower does not currently own or control, directly or indirectly, any interest in any other corporation, partnership, trust, joint venture, limited liability company, association, or other business entity. The Borrower does not currently own or control, directly or indirectly, any outstanding options, warrants, rights (including conversion or preemptive rights and rights of

first refusal or similar rights) or agreements, orally or in writing, to purchase or acquire any shares of capital stock, or any securities convertible into or exchangeable for shares of capital stock of any other corporation, partnership, trust, joint venture, limited liability company, association or other business entity.

(v) As of the Agreement Date, except as disclosed to the Lenders, the Borrower has not declared or paid any dividends or made any distribution of any kind with respect to its capital stock, and there has not been any change in the capitalization of Borrower (other than a change in the number of outstanding shares of Common Stock due to the issuance of shares upon the exercise of outstanding options or warrants), or any issuance of options, warrants, convertible securities or other rights to purchase their capital stock.

(w) As of the Agreement Date, all of the issued and outstanding shares of capital stock of the Borrower are duly authorized and validly issued, fully paid and nonassessable, have been issued in compliance with all federal and state and foreign securities laws, were not issued in violation of or subject to any preemptive rights or other rights to subscribe for or purchase securities that have not been waived in writing. Subject to the Series D Charter Filing, the conversion of the Existing Convertible Notes into shares of Series D Preferred Stock and the conversion of the Existing Warrants into warrants to purchase shares of Series D Preferred Stock, the Warrants, the Disbursement Shares and the shares of Series D Preferred Stock issuable upon exercise of the Warrants (the "Warrant Shares"), the Senior Secured Convertible Notes, the shares of Series D Preferred Stock issuable upon conversion of the Senior Secured Convertible Notes (the "Note Shares") and the shares of Common Stock issuable upon conversion of the Disbursement Shares, the Warrant Shares and the Note Shares (the "Conversion Shares") have been duly authorized, and the Warrant Shares, Note Shares and Conversion Shares, when issued, delivered and paid for in accordance with the terms of the Warrants and the Senior Secured Convertible Notes or the Series D Preferred Stock, as applicable, will have been validly issued and will be fully paid and non-assessable. Subject to the Series D Charter Filing, the conversion of the Existing Convertible Notes into shares of Series D Preferred Stock and the conversion of the Existing Warrants into warrants to purchase shares of Series D Preferred Stock and except as set forth on Schedule 3.1(w), there are no preemptive rights or other rights to subscribe for or to purchase, or any restriction upon the voting or transfer of any shares of Common Stock pursuant to the Borrower's Organizational Documents or any agreement to which the Borrower is a party or by which the Borrower is bound that have not been fully waived in respect of the issuance of the Disbursement Shares, the Warrants, the Senior Secured Convertible Notes and the shares of Series D Preferred Stock and Common Stock issuable thereunder (and shares of Common Stock issuable upon any conversion of such shares of Series D Preferred Stock). The Borrower's disclosure of its outstanding shares of capital stock, options and warrants as set forth on Schedule 3.1(w) is accurate and, except as set forth on Schedule 3.1(w), there are no additional options issuable or issued under the Borrower's option plans or any other options, warrants, agreements, contracts or other rights in existence to purchase or acquire from the Borrower or any shares of the capital stock of the Borrower. The issuance and delivery of the Disbursement Shares, the Warrants and the Senior Secured Convertible Notes does not and, assuming full exercise of the Warrants and full conversion of the Senior Secured Convertible Notes, neither the exercise of the Warrants nor the conversion of the Senior Secured Convertible Notes will, require approval from any Governmental Authority. The Disbursement Shares have been duly authorized, validly issued and are fully paid and non-assessable.

(x) No Lien exists on the Borrower's assets, except for Permitted Liens.

(y) Subject to the Series D Charter Filing, the conversion of the Existing Convertible Notes into shares of Series D Preferred Stock and the conversion of the Existing Warrants into warrants to purchase shares of Series D Preferred Stock, the issuance of the Disbursement Shares and the issuance of the Warrants and Warrant Shares and the Senior Secured Convertible Notes and the Note Shares and Conversion Shares will not obligate the Borrower to issue shares of Common Stock or other securities to any Person (other than the Lenders and the vesting of existing stock options granted to directors and officers of the Borrower and other than, in the case of Common Stock, the holder of such instrument being converted) and will not result in a right of any holder of Borrower securities to adjust the exercise, conversion, exchange or reset price under and will not result in any other adjustments (automatic or otherwise) under any of such securities. Subject to the Series D Charter Filing, the conversion of the Existing Convertible Notes into shares of Series D Preferred Stock and the conversion of the Existing Warrants into warrants to purchase shares of Series D Preferred Stock, except for the Equity Documents, and as disclosed on Schedule 3.1(y), there are no stockholders' agreements, voting agreements or other similar agreements with respect to the Borrower's capital stock to which the Borrower is a party or, to the Borrower's knowledge, between or among any of the Borrower's stockholders.

(z) The Persons holding Existing Convertible Notes issued by the Borrower have converted the principal of, and accrued and unpaid interest thereon, to Series D Preferred Stock.

(aa) As of the Agreement Date, the Borrower has no Subsidiaries.

(bb) Subject to the Series D Charter Filing, the Borrower has authorized and reserved for issuance a number of shares of Series D Preferred Stock and Common Stock sufficient to cover all shares issuable on exercise of the Warrants or conversion of the Senior Secured Convertible Notes (computed without regard to any limitations on the number of shares that may be issued on exercise or conversion) and shares of Common Stock issuable upon exercise of the Disbursement Shares and the shares of Series D Preferred Stock that are issuable upon exercise of the Warrants and conversion of the Senior Secured Convertible Notes.

(cc) The Borrower is not required, and at no time during the previous five years has the Borrower been required to register under the Securities Exchange Act of 1934, as amended.

(dd) Except as disclosed to Lender in writing, Borrower is not subject to any pending or threatened written claims against Borrower by any employees relating to labor or employment matters that singly or in the aggregate could reasonably be expected to have a Material Adverse Effect.

Section 3.2 Borrower Acknowledgment. The Borrower acknowledges that it has made the representations and warranties referred to in Section 3.1 with the intention of

persuading the Lenders to enter into the Transaction Documents and that the Lenders have entered into the Transaction Documents on the basis of, and in full reliance on, each of such representations and warranties.

Section 3.3 Representations and Warranties of the Lenders. Each Lender represents and warrants to the Borrower as of the Agreement Date that:

Section 3.4

(a) Such Lender is duly organized and validly existing under the laws of the jurisdiction of its formation.

(b) Each Transaction Document to which it is a party has been duly authorized, executed and delivered by such Lender and constitutes its valid and legally binding obligation, enforceable in accordance with its terms, except as such enforceability may be limited by (i) applicable insolvency, bankruptcy, reorganization, moratorium or other similar laws affecting creditors' rights generally, and (ii) applicable equitable principles (whether considered in a proceeding at law or in equity).

(c) Such Lender has full power and authority to make the Disbursements and to enter into and perform its other obligations under each Transaction Document and carry out the other transactions contemplated thereby.

ARTICLE 4

CONDITIONS OF DISBURSEMENT

Section 4.1 Conditions to Disbursement.

(a) The obligation of the Lenders to make the First Disbursement shall be subject to the following conditions being satisfied within thirty days of the Agreement Date:

(i) The Lenders shall have received from the Borrower executed counterparts of the Transaction Documents and Equity Documents to which the Borrower is a party, a certificate as to the Borrower's Organizational Documents, resolutions and incumbency, and an opinion of its counsel reasonably acceptable to the Lenders, such opinion to include an opinion as to an exemption available for the issuance of the Common Stock outstanding on the Agreement Date under the Securities Act.

(ii) All actions required to be taken by the Borrower pursuant to Section 2.10 shall have been taken.

(iii) At the time of and after giving effect to the Disbursement, all representations and warranties of Borrower shall be true and correct in all material respects (unless qualified by materiality, in which event such representations and warranties shall be true and correct in all respects).

(iv) No Default or Event of Default shall have occurred and be continuing or would result from the Disbursement.

(v) The Borrower has issued to the Lenders 1,923,077 shares of its Series D Preferred Stock valued at 0.78 per share in consideration for making the Loans contemplated under this Agreement.

(vi) The Borrower has delivered the Pro-Forma Closing Date Balance Sheet to the Lenders, together with a certification as to its accuracy and completeness.

(vii) The outstanding Existing Convertible Notes of the Borrower, shall have been converted into an aggregate of 5,332,348 shares of Series D Preferred Stock.

(viii) The Disbursement Condition shall have been satisfied.

(ix) The Series D Charter Filing shall have occurred and Borrower shall have taken all steps required to reincorporate in the State of Delaware.

(x) No Material Adverse Effect shall have occurred since the Agreement Date.

(xi) Borrower shall have obtained signatures from the holders of not less than 55% of each class of equity interests in Borrower to each of the Equity Documents.

(b) The obligation of the Lenders to make the Second Disbursement shall be subject to the following conditions:

(i) No Default or Event of Default shall have occurred and be continuing or would have resulted from the Disbursement.

(ii) The FDA Acceptance shall have occurred.

(iii) At the time of and after giving effect to the Disbursement, all representations and warranties of Borrower shall be true and correct in all material respects (unless qualified by materiality, in which event such representations and warranties shall be true and correct in all respects).

(iv) The Disbursement Request shall have been received by the Lenders prior to June 30, 2016, unless the written consent of the Lenders is obtained to extend such date, which consent may be granted or withheld in Lenders' sole discretion.

(c) The obligation of the Lenders to make the Third Disbursement shall be subject to the following conditions:

(i) No Default or Event of Default shall have occurred and be continuing or would have resulted from the Disbursement.

(ii) The FDA Approval shall have occurred.

(iii) At the time of and after giving effect to the Disbursement, all representations and warranties of Borrower shall be true and correct in all material respects (unless qualified by materiality, in which event such representations and warranties shall be true and correct in all respects).

(iv) The Disbursement Request shall have been received by the Lenders prior to June 30, 2016, unless the written consent of the Lenders is obtained to extend such date, which consent may be granted or withheld in Lenders' sole discretion.

(v) The Disbursement Request shall have been received by the Lenders within 120 days of the issuance of the FDA Approval.

(d) The obligation of the Lenders to make the Fourth Disbursement shall be subject to the following conditions:

(i) No Default or Event of Default shall have occurred and be continuing or would have resulted from the Disbursement.

(ii) The FDA Approval shall have occurred.

(iii) At the time of and after giving effect to the Disbursement, all representations and warranties of Borrower shall be true and correct in all material respects (unless qualified by materiality, in which event such representations and warranties shall be true and correct in all respects).

(iv) The Disbursement Request shall have been received by the Lenders prior to June 30, 2016, unless the written consent of the Lenders is obtained to extend such date, which consent may be granted or withheld in Lenders' sole discretion.

(v) The Disbursement Request for the Fourth Disbursement shall have been received by the Lenders within 120 days of the issuance of the FDA Approval.

(e) If the conditions to the First Disbursement have not been satisfied within thirty days of the Agreement Date, then Lender shall not have any further obligations under this Agreement.

ARTICLE 5

COVENANTS AND EVENTS OF DEFAULT

Section 5.1 Affirmative Covenants. Unless the Required Lenders shall otherwise agree:

(a) The Borrower shall maintain its existence and qualify and remain qualified to do its business as currently conducted, except for any merger or dissolution of a Subsidiary in accordance with Section 5.2(a).

(b) The Borrower shall comply in all material respects with Applicable Laws.

(c) The Borrower shall obtain and its Subsidiaries shall make and keep in full force and effect all Authorizations required to conduct their businesses.

(d) The Borrower shall promptly notify the Lenders of the occurrence of (i) any Default or Event of Default, (ii) any claim, litigation, arbitration, mediation or administrative or regulatory proceedings that are instituted or threatened against the Borrower or its Subsidiaries, except for such claims, litigations, arbitrations, mediations or administrative or regulatory proceedings that could not reasonably be expected to result in a Material Adverse Effect, provided that, if Borrower or any of its Subsidiaries has outstanding any class of publicly traded securities, such notice shall be given concurrently with public disclosure of any such event, (iii) any deaths in connection with any of the products of the Borrower or any of its Subsidiaries, (iv) any event that has had or could be reasonably expected to have a Material Adverse Effect on the value of any Intellectual Property, and (v) each event which, at the giving of notice, lapse of time or determination of materiality or fulfillment of any other applicable condition (or any combination of the foregoing), would constitute an event of default (however described) under any Transaction Document.

(e)(i) If the Borrower is not required to file reports pursuant to Sections 13 or 15(d) of the United States Securities Exchange Act of 1934, as it may be amended from time to time (the "Exchange Act"), the Borrower will provide quarterly unaudited consolidated financial statements within 60 days after the end of each of the first three fiscal quarters of Borrower following the date of this Agreement and within 45 days after the end of each fiscal quarter of each fiscal year thereafter, and, commencing with the fiscal year ending December 31, 2015, audited annual consolidated financial statements within 120 days after the end of each year prepared in accordance with GAAP in the United States or such other jurisdiction as may be applicable with a report thereon by the Borrower's independent certified public accountants (an "Accountant's Report"); (ii) if the Borrower is required to file reports pursuant to Sections 13 or 15(d) of the Exchange Act, the Borrower will timely file with the SEC (subject to appropriate extensions made under Rule 12b-25 of the Exchange Act) any annual reports, quarterly reports and other periodic reports required to be filed pursuant to Section 13 or 15(d) of the Exchange Act; (iii) the Borrower will provide to the Lenders copies of all documents, reports, financial data and other information that the Lenders may reasonably request, including amendments to its Organizational Documents promptly after their effectiveness; and (iv) during regular business hours and upon reasonable notice the Borrower will permit the Lenders to, (x) not more than once each calendar quarter at their own expense, visit and inspect any of the properties of the Borrower or its Subsidiaries and (y) discuss the Borrower's affairs and finances with its officers.

(f) The Borrower will maintain general and liability insurance, and such other insurance coverage in such amounts and with respect to such risks as is customary by comparable companies as the Borrower.

(g) By not later than the first anniversary of the Agreement Date, Borrower shall have obtained the signatures of holders of not less than 70% of each class of equity interests in Borrower to each of the Equity Documents, whether as original signatories or by way of joinder, and provided evidence thereof to Lenders.

(h) Borrower shall for a period of 24 months following the date of the First Disbursement, continue to use its best efforts to obtain signatures to the Equity Documents from any holders of each class of equity interests in Borrower that have not executed such documents as of the date of the First Disbursement.

The Borrower shall cause each of its Subsidiaries to comply in all material respects with each of the agreements set forth in Section 5.1. In the event of Borrower's breach of Section 5.1(g) of this Agreement, the Interest Rate shall increase by 5% per annum (exclusive of any increased interest payable under Section 2.8 of this Agreement).

Section 5.2 Negative Covenants. Unless the Required Lenders shall otherwise agree:

(a) The Borrower shall not and shall not permit any other Credit Party or any Subsidiary of a Credit Party to (i) liquidate or dissolve, or (ii) enter into any merger, consolidation or reorganization, unless the Borrower or a Subsidiary of the Borrower organized in the United States is the surviving corporation. The Borrower shall not establish any Subsidiary unless such Subsidiary executes and delivers to the Lenders a joinder to the Guaranty and Security Agreement providing for all of its assets to be collateral thereunder, in which case such Subsidiary shall be deemed to be a Credit Party.

(b) The Borrower shall not and shall not permit any other Credit Party or any Subsidiary of a Credit Party to (i) enter into any partnership, joint venture, syndicate, pool, profit-sharing or royalty agreement or other combination, or engage in any transaction, whereby its income or profits are, or might be, shared with another Person other than a wholly owned Subsidiary, (ii) enter into any management contract or similar arrangement whereby a substantial part of its business is managed by another Person, or (iii) distribute, or permit the distribution of, any of its assets, including its intangibles, to any shareholder of a Credit Party or any Subsidiary of a Credit Party or any Affiliate of a Credit Party or equity holder of such Affiliate including by way of loans or advances to, or purchase or redemption of, equity interests in a Person.

(c) The Borrower shall not and shall not permit any other Credit Party or any Subsidiary of a Credit Party to create, incur or suffer any Lien upon any of its assets, other than Permitted Liens or assign, sell, transfer or otherwise dispose of, any Transaction Document or its rights and obligations thereunder.

(d) The Borrower shall not and shall not permit any other Credit Party or any Subsidiary of a Credit Party to create, incur, assume, guarantee or be liable with respect to any Indebtedness, other than Permitted Indebtedness.

(e) The Borrower shall not and shall not permit any other Credit Party or any Subsidiary of a Credit Party to engage in any business other than the business engaged in by such Person as of the Agreement Date and businesses reasonably related, incidental, ancillary or complimentary thereto.

(f) The Borrower shall not and shall not permit any other Credit Party or any Subsidiary of a Credit Party to, directly or indirectly, enter into any transaction with any of its Affiliates, except in the ordinary course of business and upon terms that are no less favorable than would be obtained in a comparable arm's length transaction with a Person not an Affiliate.

(g) The Borrower shall not effect any underwritten public offering of Common Stock pursuant to a registration statement under the Securities Act (an "IPO") without the prior written consent of the Lenders; provided, however, that this subsection (g) shall not apply (i) to a Qualified IPO, (ii) after June 30, 2016 or (iii) after the FDA has accepted Borrower's NDA for KP201 for review and Borrower has delivered a Disbursement Request for the Second Disbursement and the Second Disbursement has not been effected.

(h) The Borrower shall not and shall not permit any other Credit Party or any Subsidiary of a Credit Party to acquire any assets (other than assets acquired in the ordinary course of business consistent with past practices), directly or indirectly, in one or more related transaction, for a consideration, inclusive of assumed Indebtedness, in cash or other property (valued at its fair market value) greater than$750,000.

(i) The Borrower shall not and shall not permit any other Credit Party or any Subsidiary of a Credit Party to sell or otherwise transfer any of their respective assets other than:

(A) in the ordinary course of business, including sales of inventory, and sales, transfers and other dispositions of used, surplus, obsolete or outmoded machinery or equipment;

(B) sales or transfers to the Borrower;

(C) the sale or discount of accounts receivable arising in the ordinary course of business, but only in connection with the compromise or collection thereof and not in connection with any financing transaction;

(D) dispositions of assets subject to any casualty or condemnation proceeding (including in lieu thereof);

(E) leases or subleases of real property granted by the Borrower or any Subsidiary to third Persons not interfering in any material respect with the business of the Borrower or any Subsidiary;

(F) the licensing of patents, trademarks, copyrights and other intellectual property in the ordinary course of business; and

(G) sales or other transfers not otherwise permitted hereunder in an aggregate amount not to exceed $250,000.

Section 5.3 Major Transaction Put/Call. The Borrower shall give the Lenders notice ("Major Transaction Notice") of a Major Transaction at least 15 Business Days prior to the anticipated effective date for such transaction (the "MT Date") or, if the Borrower has outstanding any class of publicly traded securities, not later than 2 Business Days following the first public announcement thereof. The Lenders, in the exercise of their sole discretion, may deliver at any time during the period beginning after such Lender's receipt of a Major Transaction Notice and ending 5 Business Days prior to the consummation of such Major Transaction a notice to the Borrower (the "Put Notice"), declaring that the sum of the entire outstanding principal amount of the Term Notes plus all interest accrued and unpaid thereon on the MT Date (the "Put Price") shall become due and payable on the MT Date. If the Lenders deliver a Put Notice, then on the MT Date, the Borrower shall pay the Put Price to the Lenders and the Obligations with respect to the Term Notes shall terminate. The Borrower shall not consummate any Major Transaction without complying with the provisions of this Section 5.3.

Section 5.4 General Acceleration Provision upon Events of Default. If any event specified in this Section 5.4 shall have happened and be continuing beyond the applicable cure period (each, an "Event of Default"), the Required Lenders, by notice to the Borrower, may declare the principal of, and accrued and unpaid interest on, the Notes or any part of any of them (together with any other Obligations accrued or payable) to be, and the same shall thereupon become, immediately due and payable, without any further notice or any presentment, demand, or protest of any kind, all of which are hereby expressly waived by the Borrower, and take any further action available at law or in equity, including, without limitation, the sale of the Loan and all other rights acquired in connection with the Loan:

(a) The Borrower shall have failed to make payment of principal and interest under the Notes when due and such failure shall not have been cured by the Borrower within 5 Business Days after receiving written notice of such failure from the Lenders.

(b) The Borrower shall have failed to comply with the due observance or performance of any covenant contained in any Transaction Document (other than as described in (a) or (i) of this Section 5.4 or Section 5.1(g)), and such failure shall not have been cured by the Borrower within 45 days after receiving written notice of such failure from the Lenders.

(c) Any representation or warranty made by the Borrower in any Transaction Document shall have been incorrect, false or misleading in any material respect (except to the extent that such representation or warranty is qualified by reference to materiality or Material Adverse Effect, to which extent it shall have been incorrect, false or misleading in any respect) as of the date it was made.

(d)(i) The Borrower shall generally be unable to pay its debts as such debts become due, or shall admit in writing its inability to pay its debts as they come due or shall make

a general assignment for the benefit of creditors; (ii) the Borrower shall declare a moratorium on the payment of its debts; (iii) the commencement by the Borrower of proceedings to be adjudicated bankrupt or insolvent, or the consent by it to the commencement of bankruptcy or insolvency proceedings against it, or the filing by it of a petition or answer or consent seeking reorganization, intervention or other similar relief under any applicable law, or the consent by it to the filing of any such petition or to the appointment of an intervenor, receiver, liquidator, assignee, trustee, sequestrator (or other similar official) of all or substantially all of its assets; (iv) the commencement against the Borrower of a proceeding in any court of competent jurisdiction under any bankruptcy or other applicable law (as now or hereafter in effect) seeking its liquidation, winding up, dissolution, reorganization, arrangement, adjustment, or the appointment of an intervenor, receiver, liquidator, assignee, trustee, sequestrator (or other similar official), and any such proceeding shall continue undismissed, or any order, judgment or decree approving or ordering any of the foregoing shall continue unstayed or otherwise in effect, for a period of 45 days or any other event shall have occurred which under any applicable law would have an effect analogous to any of those events listed above in this subsection.

(e) One or more judgments against the Borrower or attachments against any of its property, in excess of $250,000, or remain(s) unpaid, unstayed on appeal, undischarged, unbonded or undismissed for a period of 45 days from the date of entry of such judgment.

(f) Any authorization of a Governmental Authority necessary for the execution, delivery or performance of any Transaction Document or for the validity or enforceability of any of the Obligations is not given or is withdrawn or ceases to remain in full force or effect.

(g) The validity of any Transaction Document shall be contested by the Borrower, or any Applicable Law shall purport to render any material provision of any Transaction Document invalid or unenforceable or shall purport to prevent or materially delay the performance or observance by the Borrower of the Obligations.

(h) There is a failure to perform in any agreement to which the Borrower is a party with a third party or parties resulting in a right by such third party or parties to accelerate the maturity of any Indebtedness for borrowed money in an amount in excess of $250,000.

(i) An Event of Default shall have occurred and be continuing under the Warrants or the Borrower shall have failed to comply with any of its obligations under the Senior Secured Convertible Notes other than as provided in (a) above and such failure is not cured within 15 days after receiving written notice of such failure from Lenders.

(j) If any Governmental Authority terminates, suspends, or imposes any material restrictions on the business or operations of Borrower or any Subsidiary, and such event results in a Material Adverse Effect.

Section 5.5 Automatic Acceleration on Dissolution or Bankruptcy. Notwithstanding any other provisions of this Agreement, if an Event of Default under Section 5.4(d) occurs, the principal amount of the Notes (together with any other accrued or payable Obligations) shall thereupon become immediately due and payable without any presentment, demand, protest or notice of any kind, all of which are hereby expressly waived by the Borrower.

Section 5.6 Recovery of Amounts Due. If any amount payable hereunder is not paid as and when due, the Borrower hereby authorizes the Lenders to proceed, to the fullest extent permitted by applicable law, without prior notice, by right of set-off, banker's lien or counterclaim, against any moneys or other assets of the Borrower to the full extent of all amounts payable to the Lenders.

ARTICLE 6

MISCELLANEOUS

Section 6.1 Notices. Any notice to be given under this Agreement shall be sent by certified or registered mail (return receipt requested) or delivered personally or by courier (including a recognized overnight delivery service) or by facsimile or by electronic mail and shall be effective on the earlier of 5 days after being placed in the mail or receipt, if mailed by regular United States mail, or upon receipt, if delivered personally or by courier or by facsimile, or when read by electronic mail in each case addressed to the applicable Party. The addresses for such communications shall be as set forth below (or any other address for the applicable Party as is given to the other Parties by the applicable Party pursuant to written notice effected with this Section):

If to the Borrower:

KemPharm, Inc.
2656 Crosspark Road, Suite 100
Coralville, IA 52241
Fax: (319) 665-2577
Email: rjohnson@kempharm.com
Attn: Gordon K. Johnson

With copy (which shall not constitute notice hereunder) to:

Morgan, Lewis & Bockius LLP
101 Park Avenue
New York, New York 10178
Fax: (212) 309-6001
Email: dpollak@morganlewis.com
Attn: David W. Pollak

If to the Lenders:

Deerfield Management Company, L.P.
780 Third Avenue, 37th Floor
New York, NY 10017
Fax: 212-599-3075
Email: dclark@deerfield.com
Attn: David J. Clark

With a copy (which shall not constitute notice hereunder) to:

Katten Muchin Rosenman LLP
575 Madison Avenue
New York, New York 10022
Fax: (212) 940-8776
Email: mark.fisher@kattenlaw.com
Attn: Mark I. Fisher, Esq.

Section 6.2 Waiver of Notice. Whenever any notice is required to be given to the Lenders or the Borrower under any Transaction Document, a waiver thereof in writing signed by the person or persons entitled to such notice, whether before or after the time stated therein, shall be deemed equivalent to the giving of such notice.

Section 6.3 Reimbursement of Legal and Other Expenses. If any amount owing to the Lenders under any Transaction Document shall be collected through enforcement of this Agreement, any Transaction Document or restructuring of the Loan in the nature of a work-out, settlement, negotiation, or any process of law, or shall be placed in the hands of third Persons for collection, the Borrower shall pay (in addition to all monies then due in respect of the Loan or otherwise payable under any Transaction Document) reasonable and documented out-of-pocket attorneys' and other fees and expenses incurred in respect of such collection.

Section 6.4 Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be governed by and construed and enforced in accordance with the laws of the State of New York applicable to contracts made and to be performed in such State. All legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Agreement (whether brought against a Party or its respective affiliates, directors, officers, shareholders, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each Party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each Party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such Party at the address in effect for notices to

it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. The Parties hereby waive all rights to a trial by jury.

Section 6.5 Successors and Assigns. This Agreement shall bind and inure to the respective successors and permitted assigns of the Parties, except that the Borrower may not assign or otherwise transfer all or any part of its rights under the Transaction Documents without the prior written consent of the Lenders. No Lender may sell or otherwise transfer its commitment to extend Loans hereunder without Borrower's written consent. Each Lender may sell or otherwise transfer a Note in accordance with such Note's terms, provided that, absent an Event of Default such Lender may not sell or otherwise transfer such Note to a Competitor of the Borrower and, provided further, that such Lender shall have provided notice of the transfer to the Borrower for recordation in the Register pursuant to Section 1.4. Upon the transfer of an interest in a Note in accordance with the terms hereof and of such Note, the Borrower shall record the identity of the transferee and other relevant information in the Register and the transferee shall (to the extent of the interests transferred to such transferee) have all the rights and obligations of, and shall be deemed, a Lender hereunder. Before any Lender assigns all or any part of its rights under this Agreement or the Notes to a Party other than an investment fund managed by Deerfield Management, L.P., the Parties shall negotiate in good faith to amend this Agreement to appoint an administrative agent and grant such agent with rights and duties customary among syndicated credit facilities. Any such amendment shall be at Lenders' sole expense.

Section 6.6 Entire Agreement; Amendment. The Transaction Documents and the Equity Documents contain the entire understanding of the Parties with respect to the matters covered thereby and supersede any and all other written and oral communications, negotiations, commitments and writings with respect thereto. The provisions of this Agreement may be waived, modified, supplemented or amended only by an instrument in writing signed by the authorized officer of each Party.

Section 6.7 Severability. If any provision of this Agreement shall be invalid, illegal or unenforceable in any respect under any law, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby. The Parties shall endeavor in good faith negotiations to replace the invalid, illegal or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal or unenforceable provision.

Section 6.8 Execution; Counterparts. This Agreement may be executed in several Counterparts and by each Party by facsimile or other electronic transmission (including by email with an attached digital representation of a signature page hereto) on separate counterparts, each of which and any facsimile or other electronic copies thereof shall be deemed an original, but all of which together shall constitute one and the same agreement.

Section 6.9 Survival.

(a) This Agreement and all agreements, representations and warranties made in the Transaction Documents, and in any document, certificate or statement delivered pursuant

thereto or in connection therewith shall be considered to have been relied upon by the other Parties and shall survive the execution and delivery of this Agreement and the making of the Loan hereunder regardless of any investigation made by any such other Party or on its behalf, and shall continue in force until all amounts payable under the Transaction Documents shall have been fully paid in accordance with the provisions thereof, and the Lenders shall not be deemed to have waived, by reason of making the Loan, any Event of Default that may arise by reason of such representation or warranty proving to have been false or misleading, notwithstanding that the Lenders may have had notice or knowledge of any such Event of Default or may have had notice or knowledge that such representation or warranty was false or misleading at the time the Disbursement was made.

(b) The obligations of the Borrower under Sections 1.4 and 2.5 and the obligations of the Borrower and the Lenders under this Article 6, including, without limitation, Section 6.11, shall survive and remain in full force and effect regardless of the consummation of the transactions contemplated hereby, the repayment of the Loan, or the termination of this Agreement or any provision hereof.

Section 6.10 Waiver. Neither the failure of, nor any delay on the part of, any Party in exercising any right, power or privilege hereunder, or under any agreement, document or instrument mentioned herein, shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or privilege hereunder, or under any agreement, document or instrument mentioned herein, preclude other or further exercise thereof or the exercise of any other right, power or privilege; nor shall any waiver of any right, power, privilege or default hereunder, or under any agreement, document or instrument mentioned herein, constitute a waiver of any other right, power, privilege or default or constitute a waiver of any default of the same or of any other term or provision. No course of dealing and no delay in exercising, or omission to exercise, any right, power or remedy accruing to the Lenders upon any default under this Agreement or any other agreement shall impair any such right, power or remedy or be construed to be a waiver thereof or an acquiescence therein; nor shall the action of the Lenders in respect of any such default, or any acquiescence by it therein, affect or impair any right, power or remedy of the Lenders in respect of any other default. All rights and remedies herein provided are cumulative and not exclusive of any rights or remedies otherwise provided by law.

Section 6.11 Indemnity.

(a) The Borrower shall, at all times, indemnify and hold each Lender harmless (the "Indemnity") and each of their respective directors, partners, officers, employees, agents, counsel and advisors (each, an "Indemnified Person") in connection with any losses, claims (including the reasonable and documented out-of-pocket attorneys' fees incurred in defending against such claims), damages, liabilities, penalties, or other reasonable and documented out-of-pocket expenses arising out of, or relating to, the Transaction Documents, the extension of credit hereunder, the Loan or the use or intended use of the Loan, or a breach of Section 3.1(h) of this Agreement, regardless of Borrower's lack of knowledge, which an Indemnified Person may incur or to which an Indemnified Person may become subject but (each, a "Loss"). The Indemnity shall not apply (i) to the extent that a court or arbitral tribunal of competent jurisdiction issues a final judgment that such Loss resulted from the gross negligence or willful misconduct of the Indemnified Person or (ii) to Losses that do not involve an act or omission by

the Borrower or any of its Affiliates and that is brought by an Indemnified Person against any other Indemnified Person or (iii) in relation to any settlement effected by any Indemnified Person without the Borrower's consent. The Indemnity is independent of and in addition to any other agreement of the Borrower under any Transaction Document to pay any amount to the Lenders, and any exclusion of any obligation to pay any amount under this subsection shall not affect the requirement to pay such amount under any other section hereof or under any other agreement. For the avoidance on doubt, this Section 6.11 shall not apply to Indemnified Taxes.

(b) Promptly after receipt by an Indemnified Person under this Section 6.11 of notice of the commencement of any action (including any governmental action), such Indemnified Person shall, if a Loss in respect thereof is to be made against the indemnifying person under this Section 6.11, deliver to Borrower a written notice of the commencement thereof, and Borrower shall have the right to participate in, and, to the extent Borrower so desires, to assume control of the defense thereof with counsel mutually satisfactory to Borrower and the Indemnified Person, as the case may be.

(c) An Indemnified Person shall have the right to retain its own counsel with the reasonable and documented out-of-pocket fees and expenses to be paid by the indemnifying person, if, in the reasonable opinion of counsel for the Indemnified Person, the representation by such counsel of the Indemnified Person and Borrower would be inappropriate due to actual or potential differing interests between such Indemnified Person and any other party represented by such counsel in such proceeding. The Borrower shall pay for only one separate legal counsel for the Indemnified Persons. The failure of an Indemnified Person to deliver written notice to the Borrower within a reasonable time of the commencement of any such action shall not relieve the Borrower of any liability to the Indemnified person under this Section 6.11, except to the extent that Borrower is actually prejudiced in its ability to defend such action. The indemnification required by this Section 6.11 shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as such expense, loss, damage or liability is incurred and is due and payable.

(d) The Borrower will not be liable under the Transaction Documents for any amount paid by an Indemnified Person to settle any claims or actions if the settlement is entered into without the Borrower's consent (which consent shall not be unreasonably withheld, delayed or conditioned), provided that this section 6.11(f) shall not apply to those settlements where the Borrower was offered the ability to assume the defense of the action that directly and specifically related to the subject matter of such settlement and elected not to assume such defense.

(e) TO THE EXTENT PERMITTED BY LAW, NO PARTY HERETO SHALL ASSERT, AND EACH PARTY HERETO HEREBY WAIVES, ANY CLAIM AGAINST ANY INDEMNIFYING PARTY HEREUNDER, ON ANY THEORY OF LIABILITY, FOR SPECIAL, INDIRECT, CONSEQUENTIAL OR PUNITIVE DAMAGE (AS OPPOSED TO DIRECT OR ACTUAL DAMAGES) ARISING OUT OF, IN CONNECTION WITH, OR AS A RESULT OF THIS AGREEMENT OR ANY AGREEMENT OR INSTRUMENT CONTEMPLATED HEREBY, OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.

Section 6.12 No Usury. The Transaction Documents are hereby expressly limited so that in no contingency or event whatsoever, whether by reason of acceleration or otherwise, shall the amount paid or agreed to be paid to the Lenders for the Loan exceed the maximum amount permissible under applicable law. If from any circumstance whatsoever fulfillment of any provision hereof, at the time performance of such provision shall be due, shall involve transcending the limit of validity prescribed by law, then, ipso facto, the obligation to be fulfilled shall be reduced to the limit of such validity, and if from any such circumstance the Lenders shall ever receive anything which might be deemed interest under applicable law that would exceed the highest lawful rate, such amount that would be deemed excessive interest shall be applied to the reduction of the principal amount owing on account of the Loan, or if such deemed excessive interest exceeds the unpaid balance of principal of the Loan, such deemed excess shall be refunded to the Borrower. All sums paid or agreed to be paid to the Lenders for the Loan shall, to the extent permitted by applicable law, be deemed to be amortized, prorated, allocated and spread throughout the full term of the Loan until payment in full so that the deemed rate of interest on account of the Loan is uniform throughout the term thereof. The terms and provisions of this Section shall control and supersede every other provision of this Agreement and the Notes.

Section 6.13 Further Assurances. From time to time, the Parties shall perform any and all acts and execute and deliver to the other parties hereto such additional documents as may be necessary or as requested by any Party to carry out the purposes of any Transaction Document or any or to preserve and protect rights of such Party as contemplated therein.

Section 6.14 Confidentiality. Lenders agree that they will hold any confidential information they may receive from Borrower in connection with The Transaction Documents in confidence, unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Subsection 6.14 by Lenders), (b) is or has been independently developed or conceived by Lenders without use of Borrower's confidential information, or (c) is or has been made known or disclosed to Lender by a third party without a breach of any obligation of confidentiality such third party may have to Borrower; provided, however, that Lenders may disclose confidential information (i) to their attorneys, accountants, consultants, and other professionals to the extent necessary to obtain their services in connection with this Agreement and the other Transaction Documents; (ii) to any prospective purchaser of any Loan from Lenders, if a transfer to such prospective purchaser is permitted and such prospective purchaser agrees to be bound by the provisions of this Subsection 6.14; (iii) to any existing or prospective Affiliate, partner, member, shareholder, or wholly owned subsidiary of a Lender in the ordinary course of business, provided that Lenders inform such Person that such information is confidential and direct such Person to maintain the confidentiality of such information; (iv) as may otherwise be required by law, regulation or legal process; or (v) to any Person in connection with any legal proceeding to which it is a party.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Lenders and the Borrower have caused this Facility Agreement to be duly executed as of the Agreement Date.

BORROWER:

KEMPHARM, INC.

By: /s/ Travis C. Mickle
Name: Travis C. Mickle
Title: President and CEO

LENDERS:

DEERFIELD PRIVATE DESIGN FUND III, L.P., a Delaware limited partnership

By: Deerfield Mgmt. III, L.P., General Partner

By: J.E. Flynn Capital III LLC, General Partner

By: _____
Name:
Title:

IN WITNESS WHEREOF, the Lenders and the Borrower have caused this Facility Agreement to be duly executed as of the Agreement Date.

BORROWER:

By: _____
Name:
Title:

LENDERS:

DEERFIELD PRIVATE DESIGN FUND III, L.P., a Delaware limited partnership

By: Deerfield Mgmt. III, L.P., General Partner

By: J.E. Flynn Capital III LLC, General Partner

By: /s/ David J. Clark
Name: David J. Clark
Title: Authorized Signatory

Agreed and Accepted
As of the Date First Written Above:

DEERFIELD PRIVATE DESIGN FUND III, L.P.

By: Deerfield Mgmt. III, L.P., General Partner

By: J.E. Flynn Capital III LLC, General Partner

By: /s/ David J. Clark
Name: David J. Clark
Title: Authorized Signatory

Exhibit A

THIS NOTE MAY BE ISSUED WITH ORIGINAL ISSUE DISCOUNT ("OID") FOR U.S. FEDERAL INCOME TAX PURPOSES. THE AMOUNT OF OID SHALL BE MUTUALLY DETERMINED BY THE ORIGINAL HOLDER AND THE COMPANY IN GOOD FAITH AND IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTIONS 1271 THROUGH 1275 OF THE U.S. INTERNAL REVENUE CODE.

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE SOLD, TRANSFERRED OR ASSIGNED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER SAID ACT, OR PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER SAID ACT INCLUDING, WITHOUT LIMITATION, PURSUANT TO RULES 144 OR 144A UNDER SAID ACT OR PURSUANT TO A PRIVATE SALE EFFECTED UNDER APPLICABLE FORMAL OR INFORMAL SEC INTERPRETATION OR GUIDANCE, SUCH AS A SO-CALLED "4(1) AND A HALF" SALE.

SENIOR SECURED CONVERTIBLE NOTE

Issuance Date: June 2, 2014 Principal: U.S. $10,000,000

FOR VALUE RECEIVED, KEMPHARM, INC., a Delaware corporation (the "**Company**"), hereby promises to pay to Deerfield Private Design Fund III, L.P. or its registered assigns (the "**Holder**"), the principal amount of Ten Million Dollars ($10,000,000) pursuant to, and in accordance with, the terms of that certain Facility Agreement, dated as of June 2, 2014, by and among the Company and the Lenders party thereto (together with all exhibits and schedules thereto and as may be amended, restated, modified and supplemented from time to time, the "**Facility Agreement**"). The Company hereby promises to pay accrued and unpaid Interest (as defined below) and premium, if any, on the Principal on the dates, at the rates and in the manner provided for in the Facility Agreement. All capitalized terms used and not otherwise defined herein shall have the respective meanings set forth in the Facility Agreement.

Except as set forth herein, the Company has no right, but under certain circumstances may have an obligation, to make payments of Principal prior to the due date for such payments set forth in Section 2.3(b) of the Facility Agreement. At any time an Event of Default exists, the Principal of this Note, together with all accrued and unpaid Interest and any applicable premium due, if any, may be declared, or shall otherwise become, due and payable in the manner, at the price and with the effect provided in the Facility Agreement.

1. Definitions.

(a) Certain Defined Terms. For purposes of this Note, the following terms shall have the following meanings:

(i) **"Affiliate**" means any person or entity that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a person or entity, as such terms are used in and construed under Rule 144 under the Securities Act ("**Rule 144**"). With respect to a Holder, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as such Holder will be deemed to be an Affiliate of such Holder.

(ii) **"Applicable Value**" means (i) at any time that the Company is subject to the reporting requirements under the Exchange Act, (A) the product of (x) the number of issued and outstanding shares of Common Stock on the date the Company delivers the Major Transaction Notice (as defined in Section 3(b)) multiplied by (y) the per share closing price of the Common Stock on such date plus (B) the amount of the Company's debt as shown on the latest financial statements filed with the SEC (the **"Current Financial Statements**") plus (C) the aggregate liquidation preference of each class of the Company's preferred stock less (D) the amount of cash and cash equivalents of the Company as shown on the Current Financial Statements; and (ii) at any time that the Company is not subject to the reporting requirements under the Exchange Act, the book value of the Company's assets as shown on the most recent financial statements of the Company.

(iii) **"Bylaws**" means the Amended and Restated Bylaws of the Company, as amended from time to time.

(iv) **"Cash-Out Major Transaction**" means a Major Transaction in which the consideration payable to holders of capital stock in connection with the Major Transaction (whether paid directly or in liquidation of the Company following such Major Transaction) consists solely of cash (whether or not subject to escrows, holdbacks or other contingencies).

(v) **"Charter**" means the Company's certificate of incorporation, as it may be amended or restated from time to time.

(vi) **"Common Stock**" means the common stock, par value $0.001 per share, of the Company.

(vii) **"Conversion Amount**" means the sum of (A) the Principal to be converted, redeemed or otherwise exchanged with respect to which this determination is being made and (B) the amount of all accrued and unpaid Interest on the Principal to be converted, redeemed or otherwise exchanged with respect to which this determination is being made (the "**Interest Amount**").

(viii) **"Conversion Price**" means, as of any Conversion Date or other date of determination, $0.78 per Series D Preferred Share, subject to adjustment as

provided herein; provided, however, that from and after the Mandatory Conversion Time, the "Conversion Price" shall equal the Conversion Price in effect immediately prior to such Mandatory Conversion Time divided by the number of shares of Common Stock that would have been issuable upon such Mandatory Conversion Time in respect of a share of Series D Preferred Shares, as applicable, subject to further adjustment as provided herein.

(ix) "**Dollars**" or "**$**" means United States Dollars.

(x) "**Eligible Market**" means the New York Stock Exchange, Inc., the NYSE Arca, the NASDAQ Capital Market, the NASDAQ Global Market, the NASDAQ Global Select Market or the NYSE Alternext U.S.

(xi) "**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

(xii) "**Fair Market Value**" means the fair market value as mutually determined by the Company and Required Note Holders, subject to the dispute resolution provisions set forth in Section 2(c)(iii) below.

(xiii) "**Initial Holder**" means Deerfield Private Design Fund III, L.P.

(xiv) "**Interest**" means any interest (including any default interest) accrued on the Principal pursuant to the terms of this Note and the Facility Agreement.

(xv) "**Investor Agreements**" means the Right of First Refusal and Co-Sale Agreement, the Investors' Rights Agreement (the "Investor Rights Agreement") and the Voting Agreement, in each case, dated as of June 2, 2014, by and among the Company, the Initial Holder and the stockholders party thereto, as amended or restated from time to time in accordance with the terms thereof.

(xvi) "**IPO Event**" means the date on which shares of the Common Stock become registered under the Securities Act.

(xvii) "**Issuance Date**" means June 2, 2014, regardless of any exchange or replacement hereof.

(xviii) "**Major Transaction**" means any of the following events:

(A) a consolidation, merger, exchange of shares, recapitalization, reorganization, business combination or other similar event, (1) following which the holders of shares of voting stock immediately preceding such consolidation, merger, exchange, recapitalization, reorganization, combination or event either (a) no longer hold a majority of the shares of voting stock of the Company or (b) no longer have the ability to elect a majority of the board of directors of the Company, or (2) as a result of which Shares or shares of the Company's voting stock shall be changed into (or the holders of Shares or shares of the

Company's voting stock become entitled to receive) the same or a different number of shares of the same or another class or classes of stock or securities of another entity, other than such an event undertaken to adopt a holding company structure without otherwise changing the relative holdings of capital stock (any event following which or resulting in the conditions described in the foregoing clauses (1) or (2), collectively, a **"Change of Control Transaction**");

(B) the sale or transfer in one transaction or a series of related transactions of (i) all or substantially all of the assets of the Company to any Person or (ii) assets of the Company for a purchase price equal to more than 50% of the Applicable Value (as defined below);

(C) a third-party purchase, tender or exchange offer made to the holders of outstanding Conversion Shares or shares of any class(es) or series capital stock, such that following such purchase, tender or exchange offer a Change of Control Transaction shall have occurred;

(D) the liquidation, bankruptcy, insolvency, dissolution or winding-up (or the occurrence of any analogous proceeding) affecting the Company;

(E) after an IPO Event the shares of Common Stock cease to be listed on any Eligible Market on which they are then listed or quoted and are not promptly re-listed or requoted on an Eligible Market;

(F) at any time after an IPO Event, the shares of Common Stock cease to be registered under Section 12 of the Exchange Act; or

(G) an "Event of Liquidation" under the Company's Amended and Restated Certificate of Incorporation.

provided, however, that a Major Transaction or Change of Control shall not be deemed to have occurred solely as a result of the transfer of ownership of any shares of capital stock of the Company without the consent or agreement of the Company; provided that such proviso shall not apply to an event specified in subsection (G) of the definition of Major Transaction.

(xix) "**Mandatory Conversion Time**" means the time of any mandatory conversion of the Series D Preferred Shares required by the Charter.

(xx) "**Note**" means this Senior Secured Convertible Note (including all Senior Secured Convertible Notes issued in exchange, transfer or replacement hereof, and as may be amended, restated or supplemented from time to time).

(xxi) "**Parent Entity**" of a Person means an entity that, directly or indirectly, controls the applicable Person, or, if there is more than one such Person or Parent Entity, the Person or Parent Entity with the largest enterprise value as of the date of consummation of a Major Transaction.

(xxii) "**Per Share Underlying Common Stock Amount**" means the number of shares of Common Stock, at any relevant time, that would be issuable upon conversion of one Share, reflected as a fraction to the third decimal.

(xxiii) "**Person**" means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

(xxiv) "**Principal**" means the outstanding principal amount of this Note as of any date of determination.

(xxv) "**Publicly Traded Successor Entity**" means a Successor Entity that is a publicly traded corporation whose common stock is quoted on or listed for trading on an Eligible Market.

(xxvi) "**Qualified IPO**" means the closing of the sale of shares of the Common Stock to the public at a price of at least $1.25 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to Common Stock), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act, with at least $25,000,000 of gross proceeds to the Company and a listing of the Common Stock on the Nasdaq Stock Market or the New York Stock Exchange.

(xxvii) "**Required Conversion Conditions**" means either of the following occurring prior to June 30, 2016: (i) the United States Food & Drug Administration ("**FDA**") has approved, without requiring the performance of an efficiency study, the New Drug Application for KP201 for the treatment of acute pain or (ii) both (A) the FDA has accepted the New Drug Application for KP201 for review and (B) a Qualified IPO has occurred.

(xxviii) "**Required Note Holders**" means, at any time following the assignment or transfer of a portion of this Note such that the interest initially represented by this Note is represented by multiple Notes, Holders of at least 50% in interest of the Notes.

(xxix) "**Securities Act**" means the Securities Act of 1933, as amended.

(xxx) "**Series D Preferred Shares**" means shares of the Series D Preferred Stock.

(xxxi) "**Series D Preferred Stock**" means the Company's Series D Preferred Stock, par value $0.001 per share.

(xxxii) "**Shares**" means Series D Preferred Shares, Other Preferred Shares and, following the Mandatory Conversion Time, shares of Common Stock.

(xxxiii) **"Successor Entity**" means any Person purchasing the Company's assets sold in a Major Transaction or a majority of the Company's capital stock in a Major Transaction, or any successor entity resulting from such Major Transaction, or if the Note is to be convertible for shares of capital stock of its Parent Entity (as defined above), its Parent Entity.

(xxxiv) **"Trading Day**" means any day on which trading occurs on the principal securities exchanges or other securities markets in the United States.

2. Conversion Rights. This Note may be converted into Series D Preferred Shares, shares of Common Stock or Required Conversion Shares (as defined below) on the terms and conditions set forth in this Section 2.

(a) Conversion at Option of the Holder. At any time, the Holder shall be entitled to convert all or any part of the Principal (and the Interest Amount thereon) or any Interest accrued hereunder into fully paid and nonassessable Series D Preferred Shares, or, following the Mandatory Conversion Time, shares of Common Stock (collectively, together with any Required Conversion Shares, the "**Conversion Shares**") in accordance with this Section 2 at the Conversion Rate (as defined in Section 2(b)). In addition, the entire Principal shall be convertible into Required Conversion Shares at the option of the Company, as further set forth in and subject to the terms and conditions set forth in Section 2(h). The Company shall not issue any fraction of a Share upon any conversion. If the issuance would result in the issuance of a fraction of a Share, then the Company shall round such fraction of a Share up or down to the nearest whole share (with 0.5 rounded up).

(b) Conversion Rate. The number of Conversion Shares issuable upon a conversion of any portion of this Note pursuant to Section 2 shall be determined according to the following formula (the "**Conversion Rate**"):

$$\frac{\text{Conversion Amount}}{\text{Conversion Price}}$$

(c) Mechanics of Conversion. The conversion of this Note shall be conducted in the following manner:

(i) Holder's Delivery Requirements. To convert a Conversion Amount into Conversion Shares (other than Required Conversion Shares) on any date (the "**Conversion Date**", which shall also refer to the date of the Required Conversion Notice), the Holder shall (A) transmit by facsimile or electronic mail (or otherwise deliver), for receipt on or prior to 5:00 p.m. New York City time on such date, a copy of an executed conversion notice in the form attached hereto as Exhibit A (the "**Conversion Notice**") to the offices of the Company, 2656 Crosspark Road, Suite 100, Carolville, IA 52241 (Attention: Chief Executive Officer, Fax: (319) 665-2577, Email: rjohnson@kempharm.com), or such other address, facsimile number or email address as the Company may designate in writing, and (B) if required by Section 2(c)(vi), surrender to a common carrier for delivery to the Company, no later than three (3) Business Days after the Conversion Date, the original Note being converted (or an indemnification undertaking in customary form with respect to this Note in the case of its loss, theft or destruction).

(ii) Company's Response. Upon receipt or deemed receipt by the Company of a copy of a Conversion Notice or upon the date of a Required Conversion Notice (as defined below), as applicable, the Company (I) shall as soon as practicable send, via facsimile, a confirmation of receipt of such Conversion Notice to the Holder and the Company's designated transfer agent (the "**Transfer Agent**"), if applicable, which confirmation shall constitute an instruction to any such Transfer Agent to process such Conversion Notice or Required Conversion Notice in accordance with the terms herein and (II) (A) in the case of a conversion prior to an IPO Event, on or before the fifthteenth (15th) Business Day following the date of receipt or deemed receipt by the Company of such Conversion Notice, and (B) in the case of a conversion after an IPO Event, on or before the third (3rd) Business Day following the date of receipt or deemed receipt by the Company of such Conversion Notice or the date of the Required Conversion Notice, as the case may be (the "**Share Delivery Date**"), issue and deliver to the address as specified in the Conversion Notice or otherwise specified by the Holder, a stock certificate, registered in the name of the Holder or its designee, for the number of Conversion Shares to which the Holder shall be entitled. If this Note is submitted for conversion, as may be required by Section 2(c)(vi), and the Principal represented by this Note is greater than the Principal being converted, then the Company shall, as soon as practicable and in no event later than (1) in the case of a conversion prior to an IPO Event, fifteen (15) Business Days after receipt of this Note, or (2), in the case of a conversion after an IPO Event, three (3) Business Days (the "**Note Delivery Date**") and at its own expense, issue and deliver to the Holder a new Note representing the Principal not converted and cancel this Note.

(iii) Dispute Resolution. In the case of a dispute as to the determination of the Conversion Price or the Major Transaction Note Early Termination Price (including any determination as to Fair Market Value) or the arithmetic calculation of the Conversion Rate, the Company shall issue, or instruct the Transfer Agent to issue, as applicable, to the Holder the number of Conversion Shares that is not disputed and shall transmit an explanation of the disputed determinations or arithmetic calculations to the Holder via facsimile within two (2) Business Days of receipt or deemed receipt of the Holder's Conversion Notice or other date of determination. If the Holder and the Company are unable to agree upon the determination of the Conversion Price, Major Transaction Note Early Termination Price or arithmetic calculation of the Conversion Rate within one (1) Business Day of such disputed determination or arithmetic calculation being transmitted to the Holder, then the Company shall promptly (and in any event within two (2) Business Days) submit via facsimile or email (A) the disputed determination of the Conversion Price or Major Transaction Note Early Termination Price to an independent, reputable investment banking firm agreed to by the Company and the Required Note Holders, or (B) the disputed arithmetic calculation of the Conversion Rate to the Company's independent registered public accounting firm, as the case may be. The Company shall use commercially reasonable best efforts to direct the investment bank or the accounting firm, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than two (2) Business Days from the time it receives the disputed determinations or calculations. Such investment bank's or accounting firm's determination or calculation, as the case may be, shall be binding upon all parties absent manifest error.

(iv) Record Holder. The person or persons entitled to receive the Conversion Shares issuable upon a conversion of this Note shall be treated for all purposes as the legal and record holder or holders of such Shares on the Conversion Date, or in the case of Conversion Shares the issuance of which is subject to a *bona fide* dispute that is subject to and being resolved pursuant to, and in compliance with the time periods and other provisions of, the dispute resolution provisions of Section 2(c)(iii), the first Business Day after the resolution of such *bona fide* dispute and the fees and expenses of such investment bank or accountant shall be paid by the Company.

(v) Company's Failure to Timely Convert.

(A) Cash Damages. If, on or before the Share Delivery Date, the Company shall fail to issue and deliver a certificate to the Holder for the number of Conversion Shares (free of any restrictive legend if the Unrestricted Conditions (as defined below) are met) to which the Holder is entitled upon the Holder's conversion of any Conversion Amount, or if the Company fails to issue and deliver a new Note representing the Principal to which such Holder is entitled on or before the Note Delivery Date pursuant to Section 2(c)(ii), then in addition to all other available remedies that the Holder may pursue hereunder and under the Facility Agreement, the Company shall pay additional damages to the Holder for each 30-day period (prorated for any partial period) after the Share Delivery Date such conversion is not timely effected and/or each day after the Note Delivery Date such Note is not delivered in an amount equal to (x) in the case of a failure to deliver a certificate for the Conversion Shares, one percent (1%) of the Conversion Amount or (y) in the case of a failure to deliver a new Note, one percent (1%) of the outstanding balance of the new Note. If the Company fails to pay the additional damages set forth in this Section 2(c)(v)(A) within five (5) Business Days of the date incurred, then the Holder entitled to such payments shall have the right at any time, so long as the Company continues to fail to make such payments, to require the Company, upon written notice, to immediately issue, in lieu of such damages payments described herein, the number of Shares equal to the quotient of (X) the aggregate amount of the damages payments described in this Section 2(c)(v)(A) divided by (Y) the lower of (i) the Conversion Price in effect on such Conversion Date as specified by the Holder in the Conversion Note and (ii) the Fair Market Value Price per Conversion Share on the date of the Conversion Notice.

(B) Void Conversion Notice. If for any reason the Holder has not received all of the Conversion Shares prior to the tenth (10th) Business Day after the Share Delivery Date (a "**Conversion Failure**"), then the Holder, upon written notice to the Company (a "**Void Conversion Notice**") delivered prior to the receipt of such Conversion Shares, may void such applicable conversion with respect to, and retain or have returned, as the case may be, any portion of this Note that has not been converted pursuant to such notice; provided, that the voiding of such conversion shall not affect the Company's obligations to make any payments that have accrued prior to the date of such notice pursuant to Section 2(c)(v)(A), 2(c)(v)(C) or otherwise.

(C) Event of Default. A Conversion Failure shall constitute an Event of Default under the Facility Agreement and entitle the Lenders to all payments and remedies provided under the Facility Agreement upon the occurrence of an Event of Default.

(vi) Book-Entry. Notwithstanding anything to the contrary set forth herein, upon conversion or redemption of this Note in accordance with the terms hereof, the Holder shall not be required to physically surrender this Note to the Company unless all of the Principal is being converted or redeemed. The Holder and the Company shall maintain records showing the Principal converted or redeemed and the dates of such conversions or redemptions or shall use such other method, reasonably satisfactory to the Holder and the Company, so as not to require physical surrender of this Note upon any such partial conversion or redemption. Notwithstanding the foregoing, if this Note is converted or redeemed as aforesaid, the Holder may not transfer this Note unless the Holder first physically surrenders this Note to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Note of like tenor, registered as the Holder may request, representing in the aggregate the remaining Principal represented by this Note. The Holder and any assignee, by acceptance of this Note, acknowledge and agree that, by reason of the provisions of this paragraph, following conversion or redemption of any portion of this Note, the Principal of this Note may be less than the principal amount stated on the face hereof.

(d) Taxes. The Company shall pay any and all taxes (excluding income taxes, franchise taxes or other taxes levied on gross earnings, profits or the like of the Holder) that may be payable with respect to the issuance and delivery of Conversion Shares upon the conversion of this Note.

(e) Legends.

(i) Restrictive Legend. The Holder understands and agrees that, for so long as required pursuant to the Investor Agreements, any Conversion Shares shall contain the restrictive legends required pursuant to the terms of the Investor Agreements (the "**IA Legends**"). The Holder further understands and agrees that (A) until the Conversion Shares have been registered for sale or resale under the Securities Act, (B) are eligible for sale pursuant to Rule 144(b)(1) under the Securities Act without volume restriction or (C) have been sold pursuant to Rule 144, any Conversion Shares shall bear a restrictive legend (the "**Securities Legend**") in substantially the following form (and a stop-transfer order may be placed against transfer of the certificates for such securities):

"THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE SOLD, TRANSFERRED, ASSIGNED, PLEDGED, HYPOTHECATED OR OTHERWISE DISPOSED OF IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER SAID ACT, OR PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER SAID ACT

INCLUDING, WITHOUT LIMITATION, PURSUANT TO RULES 144 OR 144A UNDER SAID ACT OR PURSUANT TO A PRIVATE SALE EFFECTED UNDER APPLICABLE FORMAL OR INFORMAL SEC INTERPRETATION OR GUIDANCE, SUCH AS A SO-CALLED "4(1) AND A HALF" SALE."

(ii) Removal of Restrictive Legends. The certificates evidencing the Conversion Shares shall not contain the Securities Legend and no legend (other than the IA Legends, if required under the Investor Agreements) shall apply restricting the transfer thereof (any such legend that the certificates evidencing the Conversion Shares shall not so contain or that shall not so apply to the Conversion Shares, as applicable, a "**Removable Legend**"): (A) while a registration statement covering the sale or resale of such security is effective under the Securities Act, or (B) following any sale of such Conversion Shares pursuant to Rule 144, or (C) if such Conversion Shares are eligible for sale under Rule 144(b)(1) without volume restriction or (D) if transfer restrictions are not required under applicable requirements of the Securities Act (including judicial interpretations and pronouncements issued by the staff of the SEC) (collectively, the "**Unrestricted Conditions**"). The Company shall use best efforts to cause its counsel to issue a legal opinion to the Transfer Agent promptly at such time as the Unrestricted Conditions have been satisfied, if required by the Transfer Agent to issue a certificate evidencing the Conversion Shares without the Removable Legends. If the Unrestricted Conditions are met at the time of issuance of the Conversion Shares, then the Conversion Shares shall be issued free of all Removable Legends. The Company agrees that following such time as the Unrestricted Conditions are met, it will, no later than three (3) Trading Days following the delivery (the "**Unlegended Shares Delivery Deadline**") by the Holder to the Company or the Transfer Agent, if applicable, of a certificate representing Conversion Shares issued with the Removable Legends (such third Trading Day following such delivery, the "**Legend Removal Date**"), deliver or cause to be delivered to such Holder one or more certificates evidencing such Conversion Shares that do not contain the Removable Legends and/or a confirmation confirming in respect of such shares that they are free from the Removable Legends.

(iii) Sale of Unlegended Shares. Holder agrees that the removal of any restrictive legends from any securities as set forth in this Section 2(e) is predicated upon the Company's reliance that the Holder will sell such Conversion Shares pursuant to either the registration requirements of the Securities Act, including any applicable prospectus delivery requirements, or an exemption therefrom, and that if such securities are sold pursuant to a registration statement, they will be sold in compliance with the plan of distribution set forth therein.

(f) Adjustments to Conversion Price.

(i) Adjustment of Conversion Price upon Issuance of Common Stock, Options, Convertible Securities, Etc.

(A) If at any time after the Mandatory Conversion Time for so long as this Note is outstanding, the Company (x) issues or sells any Common Stock,

Convertible Securities, warrants, or Options or (y) directly or indirectly effectively reduces the conversion, exercise or exchange price for any Convertible Securities or Options which are currently outstanding, at or to an effective Per Share Selling Price (as defined below) which is less than the greater of (I) the closing sale price per share of the Common Stock on the principal securities exchange, trading market or quotation system on which shares of Common Stock are then traded, listed or quoted on the Trading Day immediately preceding such issue or sale ("Fair Market Price"), or (II) the Conversion Price, then in each such case the Conversion Price in effect immediately prior to such issue or sale date, as applicable, shall be automatically reduced effective concurrently with such issue or sale to an amount determined by multiplying the Conversion Price then in effect by a fraction, (x) the numerator of which shall be the sum of (1) the number of shares of Common Stock outstanding immediately prior to such issue or sale, plus (2) the number of shares of Common Stock which the aggregate consideration received by the Company for such additional shares would purchase at such Fair Market Price or Conversion Price, as the case may be, and (y) the denominator of which shall be the number of shares of Common Stock of the Company outstanding immediately after such issue or sale. The foregoing provision shall not apply to any issuances or sales of Common Stock or Convertible Securities (i) pursuant to any Convertible Securities or Options currently outstanding on the date hereof in accordance with the terms of such Convertible Securities in effect on the date hereof provided that such securities have not been amended since the date hereof to directly or indirectly effectively reduce the conversion, exercise or exchange price for any Convertible Securities or Options which are currently outstanding, or (ii) any Common Stock issued or issuable upon exercise of any options to employees, officers, directors, consultants and advisors (and any individuals who have accepted an offer of employment), in each case in connection with any Approved Stock Plan (as defined below).

For the purposes of the foregoing adjustments, in the case of the issuance of any Convertible Securities or Options, the maximum number of shares of Common Stock issuable upon exercise, exchange or conversion of such Convertible Securities or Options shall be deemed to be outstanding, provided that no further adjustment shall be made upon the actual issuance of Common Stock upon exercise, exchange or conversion of such Convertible Securities or Options, and provided further that to the extent such Convertible Securities or Options expire or terminate unconverted or unexercised, then at such time the Conversion Price shall be readjusted as if such portion of such Convertible Securities or Options had not been issued.

For purposes of this Section 2(f), if an event occurs that triggers more than one of the above adjustment provisions, then only one adjustment shall be made and the calculation method which yields the greatest downward adjustment in the Conversion Price shall be used.

(B) Record Date. If the Company takes a record of the holders of Shares for the purpose of entitling them (1) to receive a dividend or other distribution payable in shares of Common Stock, Options or in Convertible Securities or (2) to subscribe for or purchase shares of Common Stock, Options or Convertible Securities, then such record date will be deemed to be the date of the issue or sale of the Shares deemed to have been issued or sold upon the declaration of such dividend or the making of such other distribution or the date of the granting of such right of subscription or purchase, as the case may be.

(C) Certain Definitions. For purposes of this Section 2(f), the following terms have the respective meanings set forth below:

(I) "**Approved Stock Plan**" means any employee benefit plan which has been duly adopted by a majority of the non-employee members of the Board of Directors of the Company or a majority of the members of a committee of non-employee directors established for such purpose, pursuant to which the Company's securities may be issued to any employee, consultant, advisor, officer or director (or any individual who has accepted an offer of employment) for services provided to the Company, and in all cases, providing for a Conversion Price that is at or above the fair market value (as defined in such Approved Stock Plan).

(II) "**Convertible Securities**" means any stock or securities (other than Options) directly or indirectly convertible into or exchangeable or exercisable for shares of Common Stock.

(III) "**Exempt Issuances**" shall mean: (i) prior to the IPO Event, the actual or deemed issuance of any Exempted Securities (as defined in the Charter), and (ii) on or after the IPO Event, the issuance of (a) any Common Stock issued or issuable upon exercise of any options to employees, officers, directors, consultants and advisors (and any individuals who have accepted an offer of employment), in each case in connection with any Approved Stock Plan, up to a maximum amount of Common Stock not to exceed in any one calendar year 5% of the total number of outstanding shares of the Company (as of the beginning of such calendar year, (b) securities upon the exercise, exchange of, conversion or redemption of, or payment of interest or liquidated or similar damages on, any Common Stock issued hereunder, (c) other securities exercisable, exchangeable for, convertible into, or redeemable for shares of Common Stock issued and outstanding on the date of this Note, provided that such securities have not been amended since the date of this Note to directly or indirectly increase the number of such securities or to decrease the exercise, exchange or conversion price of such securities (and including any issuances of securities pursuant to the anti-dilution provisions of any such securities), and (d) the issuance of Common Stock, Options, Convertible Securities, stock appreciation rights, phantom stock rights or other rights with equity features (collectively, "**Management Incentives**") issued or granted to employees, officers, directors, consultants and advisors (and individuals who have accepted an offer of employment), which Management Incentives have been approved by the Required Note Holders.

(IV) "**Options**" means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

(V) "**Per Share Selling Price**" shall include the amount actually paid by third parties for each share of Common Stock in a sale or issuance by the Company. In the event a fee is paid by the Company in connection with such transaction directly or indirectly to such third party or its affiliates, any such fee shall be deducted from the selling price pro rata to all shares sold in the transaction to arrive at the Per Share Selling Price. A sale of shares of Common Stock shall include the sale or issuance of Convertible Securities or

Options, and in such circumstances the Per Share Selling Price of the Common Stock covered thereby shall also include the exercise, exchange or conversion price thereof (in addition to the consideration received by the Company upon such sale or issuance less the fee amount as provided above). In case of any such security issued in a transaction in which the purchase price or the conversion, exchange or exercise price is directly or indirectly subject to adjustment or reset based on a future date, future trading prices of the Common Stock, specified or contingent events directly or indirectly related to the business of the Company or the market for the Common Stock, or otherwise (but excluding standard stock split anti-dilution provisions or weighted-average anti-dilution provisions similar to that set forth herein, provided that any actual reduction of such price under any such security pursuant to such weighted-average anti-dilution provision shall be included and cause an adjustment hereunder), the Per Share Selling Price shall be deemed to be the lowest conversion, exchange, exercise or reset price at which such securities are converted, exchanged, exercised or reset or might have been converted, exchanged, exercised or reset, or the lowest adjustment, as the case may be, over the life of such securities. If shares are issued for a consideration other than cash, the Per Share Selling Price shall be the fair value of such consideration as determined in good faith by independent certified public accountants mutually acceptable to the Company and the Holder. In the event the Company directly or indirectly effectively reduces the conversion, exercise or exchange price for any Convertible Securities or Options which are currently outstanding, then the Per Share Selling Price shall equal such effectively reduced conversion, exercise or exchange price.

(ii) Adjustment of Conversion Price upon Subdivision or Combination of Shares. If the Company at any time on or after the Issuance Date subdivides (by any stock split, stock dividend, recapitalization or otherwise) outstanding Shares into a greater number of Shares, the Conversion Price in effect immediately prior to such subdivision will be proportionately reduced. If the Company at any time on or after the Issuance Date combines (by combination, reverse stock split or otherwise) its outstanding Shares into a lesser number of Shares, the Conversion Price in effect immediately prior to such combination will be proportionately increased.

(iii) Adjustment of Conversion Price upon a Distribution of Assets. If the Company at any time on or after the Issuance Date shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of Shares, by way of return of capital or otherwise (including any distribution of cash, stock or other securities, property or options by way of a dividend, spin-off, reclassification, corporate rearrangement or other similar transaction (a "**Distribution**"), then, in each such case, the applicable Conversion Prices in effect immediately prior to the close of business on the date fixed for the determination of holders of Shares entitled to receive the Distribution shall be reduced, effective as of the close of business on such date, to a price determined by multiplying such applicable Conversion Price by a fraction of which (A) the numerator shall be the Fair Market Value of one Share immediately preceding such date minus the Fair Market Value of the Distribution applicable to one Share, and (B) the denominator shall be the Fair Market Value of one Share on the Trading Day immediately preceding such date.

(iv) Recapitalization or Reclassification. In the event of any reclassification, recapitalization, reorganization, or change affecting the Shares, or any automatic or mandatory conversion of all of the outstanding shares of the class or series of capital stock for which this Note is then convertible (except for a conversion of the Series D Preferred Shares into Common Stock, which this Note handles by its terms), this Note shall become convertible for the kind and amount of shares of stock and other securities and property receivable in connection with such reclassification, reorganization, change or conversion by a holder of the same number of Conversion Shares as were purchasable by the Holder pursuant to conversion hereof immediately prior to such reclassification, reorganization, change or conversion. In any such case, appropriate provisions shall be made with respect to the rights and interest of the Holder so that the provisions hereof shall thereafter be applicable with respect to any shares of stock or other securities and property deliverable upon conversion hereof, and appropriate adjustments shall be made to the Conversion Price payable hereunder, provided the aggregate Conversion Price shall remain the same.

(v) Adjustment for Tax Purposes. The Company shall be entitled to make such reductions in the Conversion Price, in addition to those otherwise required by this Section 2(f), as the Company's Board of Directors in its discretion shall determine to be advisable in order that any stock dividends, subdivisions of shares, distribution of rights to purchase stock or securities, or any distribution of securities convertible into or exchangeable for stock, made after the Issuance Date by the Company to its stockholders shall not be taxable.

(vi) Other Events. If any event occurs of the type contemplated by the provisions of this Section 2(f) but not expressly provided for by such provisions (including the granting of stock appreciation rights, phantom stock rights or other rights with equity features), then the Company's Board of Directors will make an appropriate adjustment in the Conversion Price so as to protect the rights of the Holder; provided that no such adjustment will increase the Conversion Price as otherwise determined pursuant to this Section 2(f).

(vii) Notices. Promptly upon any adjustment of the Conversion Price, the Company will give written notice thereof to the Holder, setting forth in reasonable detail, and certifying, the calculation of such adjustment. The Company will give written notice to the Holder at least ten (10) Business Days prior to the date on which the Company closes its books or takes a record (I) with respect to any dividend or distribution upon the Common Stock or the Shares, (II) with respect to any pro rata subscription offer to holders of Common Stock or Shares or (III) for determining rights to vote with respect to any Major Transaction, provided that, if such notice is to be provided after the IPO Event, such information shall be made known to the public prior to or in conjunction with such notice being provided to the Holder. The Company will also give written notice to the Holder with respect to any Major Transaction as provided under Section 3(b) below.

(g) Adjustments for Diluting Issuances. The number of shares of Common Stock (or the number and type of other securities, as applicable) issuable upon conversion pursuant to the Charter of the Series D Preferred Shares into which this Note is initially convertible is subject to adjustment, from time to time, in the manner set forth in the Charter

and/or Bylaws as if the Series D Preferred Shares into which this Note is convertible were issued and outstanding on and as of the date of any such required adjustment. The provisions set forth in the Charter and/or Bylaws (and any amendment thereto) relating to adjustments to the Common Stock (or the number and type of other securities) into which Series D Preferred Shares are convertible pursuant thereto in effect as of the date hereof may not be amended, modified or waived, in a manner adverse to the holders of the shares of Series D Preferred Stock, without the prior written consent of the Holder unless (i) such amendment, modification or waiver applies on its face to all shares of Series D Preferred Stock in the same manner or (ii) such amendment, modification or waiver is approved by the Required Note Holders). Nothing in this subsection (g) shall in any way derogate from any other rights of the Holder set forth herein.

(h) Required Conversion. For the seven (7) Business Day period following the satisfaction of the Required Conversion Conditions, the Company may notify the Holder in writing (a "**Required Conversion Notice**") of its election to require the Holder to convert the entire principal amount of this Note then outstanding (subject to subsection (i) below) into Conversion Shares (a "**Required Conversion**"). Following receipt of a Required Conversion Notice, the Holder shall be entitled to receive the Conversion Shares in respect of such Required Conversion Notice within the time frame set forth in this Section 2 with respect to Conversion Shares.

(i) Limitations on Conversion. Notwithstanding anything herein to the contrary, the Company shall not issue to the Holder, and the Holder may not acquire, a number of Conversion Shares upon conversion of this Warrant to the extent that, upon such exercise, the number of shares of Common Stock then beneficially owned by the Holder and its Affiliates and any other persons or entities whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Exchange Act (including shares held by any "group" of which the Holder is a member, but excluding shares beneficially owned by virtue of the ownership of securities or rights to acquire securities that have limitations on the right to convert, exercise or purchase similar to the limitation set forth herein) would exceed 9.985% of the total number of the shares of Common Stock then issued and outstanding (the "9.985% Cap")); provided that the 9.985% Cap shall not apply to the extent that shares of Common Stock are not deemed to constitute "equity securities" pursuant to Rule 13d-1(i) under the Exchange Act and, provided further, that the 9.985% Cap shall not apply to an exercise effected following receipt of a Major Transaction Notice (as defined below) in respect of a Major Transaction (as defined below) described in clause (A) of the definition of Major Transaction above in which the Company will not be the surviving entity, until consummation or abandonment of such Major Transaction and, provided further, that the 9.985% Cap shall not apply to the conversion of this Note into IPO Conversion Shares. For the avoidance of doubt, a conversion hereunder (whether at the election of the Holder or the Company) shall be null and void to the extent the issuance of shares upon such conversion would violate this subsection (i).

3. Rights Upon Major Transaction. Notwithstanding anything contained herein or in the Facility Agreement to the contrary, in the event that a Major Transaction occurs, then the Holder, at its option, may require the Company to redeem all or any portion of the Principal (and the Interest Amount thereon) outstanding on the Holder's Notes for cash in accordance with

Section 3(b) below. In the event the Holder shall not have exercised any of its rights under the immediately preceding sentence within the applicable time periods set forth herein, then the Major Transaction shall be treated as an Assumption (as defined below) in accordance with Section 3(a) below unless the Holder waives its rights under this Section 3 with respect to such Major Transaction. For the avoidance of doubt, the Holder may waive the above provisions of this Section 3 with respect to any Major Transaction and, without limitation, may elect to convert this Note in accordance with the other terms hereof prior to any Major Transaction.

(a) Assumption. The Company shall not enter into or be party to a Major Transaction that is to be treated as an Assumption pursuant to this Section 3, unless any Successor Entity assumes in writing all of the obligations of the Company under this Note and provides (a) registration rights that are comparable to those provided to the initial Holder under the Investor Rights Agreement, if the Successor Entity is not a Publicly Traded Successor Entity, or (B) resale registration rights reasonably acceptable to the Holder, if the Successor Entity is a Publicly Traded Successor Entity, in accordance with the provisions of this Section 3(a) pursuant to written agreements and instruments in form and substance reasonably satisfactory to the Holder and approved by the Holder prior to such Major Transaction (not to be unreasonably withheld or delayed), including a security of the Successor Entity evidenced by a written instrument (a "**Replacement Note**") substantially similar in form and substance to the Notes, including, without limitation, representing the appropriate number of shares of the Successor Entity, having similar conversion rights as the Notes (including but not limited to a similar Conversion Price and similar Conversion Price adjustment provisions based on the price per share or conversion ratio, and taking into account any cash consideration, to be received by the holders of Conversion Shares in the Major Transaction) and providing for conversion into the shares of the Successor Entity into or for which shares of the same class and series as the Shares are to be converted or exchanged ("**Successor Conversion Shares**"). Upon the occurrence of any Major Transaction, but only if a Replacement Note has not been delivered to the Holder in connection therewith, any Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Major Transaction, the provisions of this Note referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Note with the same effect as if such Successor Entity had been named as the Company herein. Upon consummation of the Major Transaction, but only if a Replacement Note has not been delivered to the Holder in connection therewith, any Successor Entity shall deliver to the Holder confirmation that there shall be issued upon conversion or redemption of this Note at any time after the consummation of the Major Transaction, in lieu of the Conversion Shares (or other securities, cash, assets or other property) issuable upon the conversion of the Notes prior to such Major Transaction, such Successor Conversion Shares in accordance with the provisions of this Note. The provisions of this Section shall apply similarly and equally to successive Major Transactions and shall be applied without regard to any limitations on the conversion of this Note, including any applicable beneficial ownership limitations. Any assumption of Company obligations under this paragraph shall be referred to herein as an "**Assumption**."

(b) Notice; Major Transaction Early Termination Right. At least fifteen (15) days prior to the consummation of any Major Transaction, but, in any event, within five (5)

Business Days following the first to occur of (x) the date of the public announcement of such Major Transaction if such announcement is made before 4:00 p.m., New York City time, (y) the day following the public announcement of such Major Transaction if such announcement is made on and after 4:00 p.m., New York City time, and (z) the date of execution of the definitive agreement with respect to a Major Transaction, if such agreement is executed prior to an IPO Event, the Company shall deliver written notice thereof via facsimile and overnight courier to the Holder (a "**Major Transaction Notice**"). At any time during the period beginning after the Holder's receipt of a Major Transaction Notice and ending five (5) Trading Days prior to the consummation of such Major Transaction (the "**Early Termination Period**"), the Holder may require the Company to redeem (an "**Early Termination Upon Major Transaction**") all or any portion of the outstanding portion of this Note (without regard to any ownership limitations) by delivering written notice thereof ("**Major Transaction Early Termination Notice**") to the Company, which Major Transaction Early Termination Notice shall indicate the portion (the "**Early Termination Portion**") of this Note that the Holder is electing to have so redeemed. The Early Termination Portion shall be redeemed by the Company at a price (the "**Major Transaction Note Early Termination Price**") payable in cash equal to the greater of (1) the Principal amount of the Early Termination Portion and the Interest Amount thereon (additionally including, for this purpose, any interest that would have accrued on such Principal amount from the date of the Major Transaction until the then applicable maturity date of the Note were such Principal amount on the Note outstanding throughout such period), and (2) the amount of cash payable or distributable per Conversion Share plus the Fair Market Value of any property (other than cash) payable or distributable per Conversion Share (or the shares of Common Stock into which such Conversion Shares are then convertible, if greater), in each case, pursuant to the terms of the Charter in connection with such Major Transaction.

(c) Payment of Major Transaction Note Early Termination Price. Following the receipt of a Major Transaction Early Termination Notice from the Holder, the Company shall not effect a Major Transaction that is being treated as an early termination unless it obtains the written agreement of any Successor Entity that payment of the Major Transaction Note Early Termination Price shall be made to the Holder prior to or concurrently with consummation of such Major Transaction (subject to any holdbacks or escrows applicable to such payment pursuant to the applicable acquisition agreement and subject to standard non-material conditions on such payment imposed by such Successor Entity, such as surrender of this Note and delivery of a letter of transmittal and an applicable IRS Form W-9 or applicable W-8, if applicable), and such payment shall be a condition precedent or concurrent to consummation of such Major Transaction.

(d) Injunction. Following the receipt of a Major Transaction Early Termination Notice from the Holder, in the event that the Company attempts to consummate a Major Transaction without the Major Transaction Note Early Termination Price being paid to the Holder prior to or concurrently with the consummation of such Major Transaction in accordance with Section 3(c) above, or obtaining any written agreement of the Successor Entity required by Section 3(c) above, the Holder shall have the right to apply for an injunction in any state or federal courts sitting in the City of New York, borough of Manhattan to prevent the closing of such Major Transaction until the Major Transaction Note Early Termination Price is paid to the Holder, in full.

Any payment determined pursuant to clause (1) of Section 3(b) in connection with an early termination shall have priority to payments to holders of capital stock in connection with a Major Transaction and to the extent an early termination required by this Section 3 is deemed or determined by a court of competent jurisdiction to be prepayments of the Note by the Company, such early termination shall be deemed to be voluntary prepayments. Notwithstanding anything to the contrary in this Section 3, until the Major Transaction Note Early Termination Price is paid in full (excluding any amount subject to escrows or holdbacks and any other contingent consideration that has not accrued), this Note may be converted, in whole or in part, by the Holder into Shares, or in the event the Conversion Date is after the consummation of a Major Transaction, Successor Conversion Shares pursuant to this Section 3. The parties hereto agree that in the event of the early termination of any portion of the Note under this Section 3, the Holder's damages would be uncertain and difficult to estimate because of the parties' inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for the Holder. Accordingly, any premium due under this Section 3 is intended by the parties to be, and shall be deemed, a reasonable estimate of the Holder's actual loss of its investment opportunity and not as a penalty.

4. Amendment; Waiver. The terms and provisions of this Note shall not be amended or waived except in a writing signed by the Company and the Holder, provided that the Company and the Required Note Holders may in writing amend the Notes on behalf of all of the Holders of Notes.

5. Remedies, Characterizations, Other Obligations, Breaches and Injunctive Relief. The remedies provided in this Note shall be cumulative and in addition to all other remedies available under this Note, the Facility Agreement, at law or in equity (including a decree of specific performance and/or other injunctive relief). No remedy contained herein shall be deemed a waiver of compliance with the provisions giving rise to such remedy, and nothing herein shall limit the Holder's right to pursue actual damages for any failure by the Company to comply with the terms of this Note. The Company covenants to the Holder that, except as may be set forth in the Facility Agreement, there shall be no characterization concerning this instrument other than as expressly provided herein. Amounts set forth or provided for herein with respect to payments, conversion and the like (and the computation thereof) shall be the amounts to be received by the Holder thereof and shall not, except as expressly provided herein, be subject to any other obligation of the Company (or the performance thereof). The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the Holder shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

6. Specific Shall Not Limit General; Construction. No specific provision contained in this Note shall limit or modify any more general provision contained herein. This Note shall be deemed to be jointly drafted by the Company and all purchasers of Notes pursuant to the Facility Agreement and shall not be construed against any Person as the drafter hereof.

7. Failure or Indulgence Not Waiver. No failure or delay on the part of the Holder in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege.

8. Notices. Whenever notice is required to be given under this Note, unless otherwise provided herein, such notice shall be given in accordance with Section 4.1 of the Facility Agreement.

9. Restrictions on Transfer.

(a) Registration or Exemption Required. This Note has been issued in a transaction exempt from the registration requirements of the Securities Act by virtue of Regulation D and exempt from state registration or qualification under applicable state laws. None of the Note or the Conversion Shares may be pledged, transferred, sold, assigned, hypothecated or otherwise disposed of except pursuant to an effective registration statement or an exemption to the registration requirements of the Securities Act and applicable state laws including, without limitation, a so-called "4(1) and a half" transaction.

(b) Assignment. Subject to Section 6.5 of the Facility Agreement, the Holder may sell, transfer, assign, pledge, hypothecate or otherwise dispose (collectively, "**Transfer**") of this Note, in whole or in part. Holder shall deliver a written notice to Company, substantially in the form of the Assignment attached hereto as Exhibit B, indicating the Person or Persons to whom the Note shall be Transferred and the respective principal amount of the Note to be Transferred to each assignee. The Company shall effect the Transfer within (i) five (5) Business Days, in the case of a transfer occurring prior to an IPO Event, and (ii) three (3) Business Days, in the case of a transfer occurring following the IPO Event (the "**Transfer Delivery Period**"), and shall deliver to the assignee(s) designated by Holder a Note or Notes of like tenor and terms for the appropriate principal amount. This Note and the rights evidenced hereby shall inure to the benefit of and be binding upon the successors and assigns of the Holder. The provisions of this Note are intended to be for the benefit of all Holders from time to time of this Note, and shall be enforceable by any such Holder. For avoidance of doubt, in the event Holder notifies the Company that such sale or transfer is a so called "4(1) and half" transaction, the parties hereto agree that a legal opinion from outside counsel for the Holder delivered to counsel for the Company substantially in the form attached hereto as Exhibit C shall be the only requirement to satisfy an exemption from registration under the Securities Act to effectuate such "4(1) and half" transaction.

10. Payment of Collection, Enforcement and Other Costs. If (a) this Note is placed in the hands of an attorney for collection or enforcement or is collected or enforced through any

legal proceeding; or (b) an attorney is retained to represent the Holder in any bankruptcy, reorganization, receivership of the Company or other proceedings affecting Company creditors' rights and involving a claim under this Note, then the Company shall pay the costs incurred by the Holder for such collection, enforcement or action, including reasonable attorneys' fees and disbursements.

11. Cancellation. After all Principal, Interest and other amounts at any time owed under, or on account of, this Note have been paid in full or converted into Shares in accordance with the terms hereof, this Note shall automatically be deemed cancelled, shall be surrendered to the Company for cancellation and shall not be reissued.

12. Registered Note. This Note may be transferred only upon notation of such transfer on the Register, and no assignment thereof shall be effective until recorded therein.

13. Waiver of Notice. To the extent permitted by law, the Company hereby waives demand, notice, presentment, protest and all other demands and notices in connection with the delivery, acceptance, performance, default or enforcement of this Note and the Facility Agreement.

14. Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Note shall be governed by and construed and enforced in accordance with the laws of the State of New York applicable to contracts made and to be performed in such State. All legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Note (whether brought against a party or its respective affiliates, directors, officers, shareholders, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Note and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. The parties hereby waive all rights to a trial by jury.

15. Interpretative Matters. Unless the context otherwise requires, (a) all references to Sections or Exhibits are to Sections or Exhibits contained in or attached to this Note, (b) each accounting term not otherwise defined in this Note has the meaning assigned to it in accordance with GAAP, (c) words in the singular or plural include the singular and plural and pronouns stated in either the masculine, the feminine or neuter gender shall include the masculine, feminine and neuter and (d) the use of the word "including" in this Note shall be by way of

example rather than limitation. If a stock split, stock dividend, stock combination or other similar event occurs during any period over which an average price is being determined, then an appropriate adjustment will be made to such average to reflect such event.

16. Execution. A facsimile, telecopy, PDF or other reproduction of this Note may be delivered by the Company, and an executed copy of this Note may be delivered by the Company by facsimile, e-mail or other similar electronic transmission device pursuant to which the signature of or on behalf of the Company can be seen, and such execution and delivery shall be considered valid, binding and effective for all purposes. The Company hereby agrees that it shall not raise the execution of facsimile, PDF or other reproduction of this Note, or the fact that any signature was transmitted by facsimile, e-mail or other similar electronic transmission device, as a defense to the Company's execution of this Note. Notwithstanding the foregoing, the Company shall be required to deliver an originally executed Note to the Holder.

[Signature page follows]

IN WITNESS WHEREOF, the Company has caused this Senior Secured Convertible Note to be duly executed as of the date first set forth above.

COMPANY:

KEMPHARM, INC.

By: _____

Exhibit A

CONVERSION NOTICE

Reference is made to the Senior Secured Convertible Note (the "**Note**") of **KEMPHARM, INC.**, a Delaware corporation (the "**Company**"), in the original principal amount of $10,000,000. In accordance with and pursuant to the Note, the undersigned hereby elects to convert the Conversion Amount (as defined in the Note) of the Note indicated below into shares of the Company, as of the date specified below.

Date of Conversion:_____

Aggregate Conversion Amount to be converted at the Conversion Price (as defined in the Note):

_____

Principal, applicable thereto, to be converted:_____

Interest, applicable thereto, to be converted:_____

Please confirm the following information:

Conversion Price:_____

Number of shares of [ ] to be issued:_____

Please issue the [ ] into which the Note is being converted in the following name and to the following address:

Issue to:_____

Facsimile Number:_____

Authorization:_____
By:_____
Title:_____

Dated:_____

ACKNOWLEDGMENT

The Company hereby acknowledges this Conversion Notice and hereby directs [TRANSFER AGENT] to issue the above indicated number of shares of Common Stock in accordance with the Irrevocable Transfer Agent Instructions dated [ ], 2014 from the Company and acknowledged and agreed to by [TRANSFER AGENT].

KEMPHARM, INC.

By: _____
Name:
Title:

Exhibit B

ASSIGNMENT

(To be executed by the registered holder
desiring to transfer the Note)

FOR VALUE RECEIVED, the undersigned holder of the attached Senior Secured Convertible Note (the "**Note**") hereby sells, assigns and transfers unto the person or persons below named the right to receive the principal amount of $____ from KEMPHARM, INC., a [_____] corporation, evidenced by the attached Note and does hereby irrevocably constitute and appoint _____ attorney to transfer the said Note on the books of the Company, with full power of substitution in the premises.

Dated: _____

_____
Signature

Fill in for new registration of Note:

_____
Name

_____
Address

_____
Please print name and address of assignee
(including zip code number)

NOTICE

The signature to the foregoing Assignment must correspond to the name as written upon the face of the attached Note in every particular, without alteration or enlargement or any change whatsoever.

Exhibit C

FORM OF OPINION

_____, 20__

[_____]

Re: KEMPHARM, INC. (the "Company")

Dear Sir:

[_____] ("[_____]") intends to transfer its Senior Secured Convertible Note in the principal amount of $____ (the "Note") of the Company to _____ ("_____") without registration under the Securities Act of 1933, as amended (the "Securities Act"). In connection herewith, we have examined such documents and issues of law as we have deemed relevant.

Based on and subject to the foregoing, we are of the opinion that the transfer of the Note by _____ to _____ may be effected without registration under the Securities Act, provided, however, that the Note to be transferred to _____ contain a legend restricting its transferability pursuant to the Securities Act and that transfer of the Note is subject to a stop order.

The foregoing opinion is furnished only to _____ and may not be used, circulated, quoted or otherwise referred to or relied upon by you for any purposes other than the purpose for which furnished or by any other person for any purpose, without our prior written consent.

Very truly yours,

Exhibit B

CERTIFICATE OF INCORPORATION

OF

KEMPHARM, INC.

This Certificate of Incorporation is being executed as of May 28, 2014. Pursuant to the provisions of the General Corporation Law of the State of Delaware (the "DGCL"), the undersigned does hereby make the following statements for the purposes of the DGCL.

ARTICLE I.

The name of the Corporation is KemPharm, Inc. (the "Corporation").

ARTICLE II.

The address of the Corporation's registered office in the State of Delaware is 1209 North Orange St., City of Wilmington, County of New Castle, Delaware, Zip Code 19801, and the name of its registered agent at such address is The Corporation Trust Company; *provided* that such designations may hereinafter be changed by the Corporation's board of directors (the "Board") in accordance with the DGCL.

ARTICLE III.

The nature of the business or purposes to be conducted or promoted by the corporation is to engage in any lawful act or activity for which corporations may be organized under the DGCL.

ARTICLE IV.

This Corporation shall have no corporate seal.

ARTICLE V.

The Corporation is authorized to issue 249,483,000 shares of stock, consisting of 140,000,000 shares of common stock ("Common Stock"), with a par value of $0.0001 per share, and 109,483,000 shares of preferred stock, with a par value of $0.0001 per share, of which 9,705,000 shares are designated Series A Convertible Preferred Stock ("Series A Preferred Stock"), 6,220,000 shares are designated Series B Convertible Preferred Stock ("Series B Preferred Stock"), 18,558,000 shares are designated Series C Convertible Preferred Stock ("Series C Preferred Stock") and 75,000,000 shares are designated Series D Convertible Preferred Stock ("Series D Preferred Stock"). The rights, preferences, privileges and restrictions granted to and imposed on the Common Stock and each series of Preferred Stock are as set forth below.

ARTICLE VI.

The corporate existence of this Corporation shall have perpetual duration unless sooner dissolved in accordance with the Certificate of Incorporation and as otherwise provided in the DGCL. The Corporation's incorporator is David W. Pollak, whose address at the time of incorporation was 101 Park Avenue, New York, NY 10178.

ARTICLE VII.

Section 1. Directors. The Board shall comprise at least seven (7) and not more than nine (9) directors. The Board shall be composed of a specific number of Directors as shall be determined and fixed by the Board from time to time in the manner set forth in the Corporation's bylaws (as amended from time to time, the "Bylaws").

Section 2. Director Election and Qualifications. Unless otherwise provided by the Bylaws, directors need not be stockholders. The election of directors for this Corporation need not be by written ballot unless the Bylaws so require.

Section 3. Board Authority. The directors of the Corporation shall have the powers set forth in the DGCL and the Bylaws. Subject to any additional vote required by the Certificate of Incorporation or the Bylaws, in furtherance of and not in limitation of the powers granted by statute, the Board is expressly authorized to make, alter, amend, repeal or rescind the Bylaws in any manner not inconsistent with the laws of the State of Delaware, any agreement between the Corporation and its stockholders and the approval of any holders of Series D Preferred Stock required under Section 4 of Article XIII of the Certificate of Incorporation.

ARTICLE VIII.

The Corporation renounces, to the fullest extent permitted by law, any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of (i) any director of the Corporation who is not an employee of the Corporation or any of its subsidiaries, or (ii) Deerfield Private Design Fund III, L.P. (the "Deerfield Investor") or any partner, member, director, stockholder, employee or agent of the Deerfield Investor, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, "Covered Persons"), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of the Corporation.

ARTICLE IX.

Section 1. No Liability. To the fullest extent permitted by law, a director of the Corporation shall not be liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the DGCL or any other law of the State of Delaware is amended after approval by the stockholders of this Article IX to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL as so amended.

Section 2. Amendment of Article IX. Any amendment, repeal or modification of any of the foregoing provisions of this Article IX shall not adversely affect any right or protection of a director, officer, agent, or other person existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director, officer or agent occurring prior to, such amendment, repeal or modification.

ARTICLE X.

Section 1. Limited Liability. The private property of the stockholders shall be forever exempt from corporate debts and liabilities.

Section 2. Amendment of Article X. This Article shall not be changed except by one hundred percent (100%) vote of all stockholders in interest in favor thereof.

ARTICLE XI.

Section 1. Right to Indemnification of Directors and Officers. The Corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (an "Indemnified Person") who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding"), by reason of the fact that such person, or a person for whom such person is the legal representative, is or was a director or officer of the Corporation or, while a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, limited liability company, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such Indemnified Person in such Proceeding. Notwithstanding the preceding sentence, except as otherwise provided in Section 3 of this Article XI, the Corporation shall be required to indemnify an Indemnified Person in connection with a Proceeding (or part thereof) commenced by such Indemnified Person only if the commencement of such Proceeding (or part thereof) by the Indemnified Person was authorized in advance by the Board.

Section 2. Prepayment of Expenses of Directors and Officers. The Corporation shall pay the expenses (including attorneys' fees) incurred by an Indemnified Person in defending any Proceeding in advance of its final disposition, *provided*, *however*, that, to the extent required by law, such payment of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by the Indemnified Person to repay all amounts advanced if it should be ultimately determined that the Indemnified Person is not entitled to be indemnified under this Article XI or otherwise.

Section 3. Claims by Directors and Officers. If a claim for indemnification or advancement of expenses under this Article XI is not paid in full within thirty (30) days after a written claim therefor by the Indemnified Person has been received by the Corporation, the Indemnified Person may file suit to recover the unpaid amount of such claim and, if successful in

whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such action the Corporation shall have the burden of proving that the Indemnified Person is not entitled to the requested indemnification or advancement of expenses under applicable law.

Section 4. Indemnification of Employees and Agents. The Corporation may indemnify and advance expenses to any person who was or is made or is threatened to be made or is otherwise involved in any Proceeding by reason of the fact that such person, or a person for whom such person is the legal representative, is or was an employee or agent of the Corporation or, while an employee or agent of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, limited liability company, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such person in connection with such Proceeding. The ultimate determination of entitlement to indemnification of persons who are non-director or officer employees or agents shall be made in such manner as is determined by the Board in its sole discretion. Notwithstanding the foregoing sentence, the Corporation shall not be required to indemnify a person in connection with a Proceeding initiated by such person if the Proceeding was not authorized in advance by the Board.

Section 5. Advancement of Expenses of Employees and Agents. The Corporation may pay the expenses (including attorneys' fees) incurred by an employee or agent in defending any Proceeding in advance of its final disposition on such terms and conditions as may be determined by the Board.

Section 6. Non-Exclusivity of Rights. The rights conferred on any person by this Article XI shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of the Certificate of Incorporation, the Bylaws, agreement, vote of stockholders or disinterested directors or otherwise.

Section 7. Other Indemnification. The Corporation's obligation, if any, to indemnify any person who was or is serving at its request as a director, officer or employee of another Corporation, partnership, limited liability company, joint venture, trust, organization or other enterprise shall be reduced by any amount such person may collect as indemnification from such other Corporation, partnership, limited liability company, joint venture, trust, organization or other enterprise.

Section 8. Insurance. The Board may, to the full extent permitted by applicable law as it presently exists, or may hereafter be amended from time to time, authorize an appropriate officer or officers to purchase and maintain at the Corporation's expense insurance: (a) to indemnify the Corporation for any obligation which it incurs as a result of the indemnification of directors, officers and employees under the provisions of this Article XI; and (b) to indemnify or insure directors, officers and employees against liability in instances in which they may not otherwise be indemnified by the Corporation under the provisions of this Article XI.

Section 9. Amendment or Repeal. Any repeal or modification of the foregoing provisions of this Article XI shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification. The rights provided hereunder shall inure to the benefit of any Indemnified Person and such person's heirs, executors and administrators.

ARTICLE XII.

Section 1. Amendment of Certificate of Incorporation. Subject to any approvals required under the Certificate of Incorporation, including but not limited to Section 4 of Article XIII, the procedure to amend the Certificate of Incorporation shall be the same as set out in the DGCL.

Section 2. Dissolution. Following the Corporation's receipt of approvals required under the Certificate of Incorporation, including but not limited to Section 4 of Article XIII, and any other approvals required under the DGCL, the Corporation may be dissolved in accordance with the Certificate of Incorporation and the DGCL.

ARTICLE XIII.

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

Section 1. Definitions. Capitalized terms used herein and not otherwise defined shall have the meanings set forth below.

A. "Additional Consideration" shall mean the portion, if any, of the consideration payable to the stockholders of the Corporation in an Event of Liquidation that is only payable upon the satisfaction of certain contingencies.

B. "Additional Shares of Common Stock" shall mean all shares of Common Stock issued (or, pursuant to Subsection 7.D(b) of this Article XIII, deemed to be issued) by the Corporation after the Series D Original Issue Date, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, "Exempted Securities"):

(a) shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on applicable Preferred Stock;

(b) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Subsections 7.D, 7.F, 7.G or 7.H of this Article XIII;

(c) shares of Common Stock or Options issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board;

(d) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;

(e) any shares of Series D Preferred Stock issued to (1) the Deerfield Investor pursuant to the Facility Agreement or (2) other Persons upon conversion of the Corporation's unsecured convertible notes, in an original aggregate principal amount of $3,846,000, which notes were issued pursuant to that certain Subscription Agreement dated as of April 15, 2013; or

(f) any Deerfield Warrants and Deerfield Convertible Notes, and shares of Common Stock or Series D Preferred Stock issuable upon exercise of any Deerfield Warrants or upon conversion of any Deerfield Convertible Notes.

C. "Available Proceeds" shall mean the consideration received by the Corporation for a Deemed Liquidation Event (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board), together with any other assets of the Corporation available for distribution to its stockholders, all to the extent permitted by Delaware law governing distributions to stockholders.

D. "Conversion Price" shall have the meaning give to it in Subsection 7.A of this Article XIII.

E. "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

F. "Conversion Time" shall mean the close of business on the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of notice and, if applicable, certificates (or lost certificate affidavit and agreement) by a holder of Preferred Stock of the voluntary conversion of his, her or its Preferred Stock into Common Stock in accordance with Subsection 7.C(a) of this Article XIII.

G. "Deemed Liquidation Event" shall mean (i) any merger, consolidation or share exchange transaction in which (a) the Corporation is a constituent party or (b) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation (except any such merger, consolidation or share exchange involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger, consolidation or share exchange continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation; or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger,

consolidation or share exchange, the parent corporation of such surviving or resulting corporation), or (ii) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets or capital stock of the Corporation and its subsidiaries taken as a whole, or the sale or disposition (whether by merger, consolidation or otherwise) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly-owned subsidiary of the Corporation.

H. "Deerfield Convertible Notes" shall mean the senior secured convertible notes issued by the Corporation to the Deerfield Investor pursuant to the Facility Agreement.

I. "Deerfield Warrants" shall mean the warrants to purchase shares of Series D Preferred Stock or Common Stock issued by the Corporation to the Deerfield Investor.

J. "Event of Liquidation" shall mean (i) any liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary or (ii) any Deemed Liquidation Event.

K. "Facility Agreement" shall mean that certain Facility Agreement, dated on or around May 30, 2014, between the Corporation and the Deerfield Investor.

L. "Initial Consideration" shall mean the portion of the consideration payable to the stockholders of the Corporation in an Event of Liquidation that is not Additional Consideration.

M. "Initial Conversion Price" shall have the meaning given to it in Subsection 7.A of this Article XIII.

N. "Liquidation Preference Amount" shall be, (i) with respect to any share of Series A Preferred Stock, equal to $0.40 per share of any then unconverted Series A Preferred Stock, as adjusted for subdivision or combination of such shares, (ii) with respect to any share of Series B Preferred Stock, equal to $0.62 per share of any then unconverted Series B Preferred Stock, as adjusted for subdivision or combination of such shares, (iii) with respect to any share of Series C Preferred Stock, equal to $0.78 per share of any then unconverted Series C Preferred Stock, as adjusted for subdivision or combination of such shares; and (iv) with respect to any share of Series D Preferred Stock, equal to $0.78 per share of any then unconverted Series D Preferred Stock, as adjusted for subdivision or combination of such shares.

O. "Option" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

P. "Original Issue Price" shall mean (i) with respect to any share of Series A Preferred Stock, $0.40 per share, (ii) with respect to any share of Series B Preferred Stock, $0.62 per share, (iii) with respect to any share of Series C Preferred Stock, $0.78 per share, and (iv) with respect to any share of Series D Preferred Stock, $0.78 per share, subject in each case to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Preferred Stock.

Q. "Person" shall mean any individual, firm, corporation, partnership, trust, limited liability company, incorporated or unincorporated association, joint venture, joint stock company, government (or an agency or political subdivision thereof) or other entity of any kind, and shall include any successor (by merger or otherwise) of such entity.

R. "Preferred Stock" shall mean Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock without distinction.

S. "Qualified Public Offering" shall mean the closing of the sale of shares of the Common Stock to the public at a price of at least $1.25 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to Common Stock), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act, with at least $25,000,000 of gross proceeds to the Corporation and a listing of the Common Stock on the Nasdaq Stock Market or the New York Stock Exchange.

T. "Requisite Series D Holders" shall mean the holders of a majority of the outstanding shares of Series D Preferred Stock then outstanding or issuable upon the conversion or exchange of Convertible Securities (including the Deerfield Convertible Notes) or issuable upon the exercise of Options (including the Deerfield Warrants), which majority must include the Deerfield Investor.

U. "Series D Original Issue Date" shall mean the date on which the first shares of Series D Preferred Stock was issued.

V. "Securities Act" shall mean the Securities Act of 1933, as amended.

W. "Term Note" shall mean that certain term note issued by the Corporation to the Deerfield Investor pursuant to the Facility Agreement.

Section 2. Common Stock.

A. General. The voting, dividend, liquidation and any other rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein and to the rights, powers and preferences of other classes and series of Preferred Stock that may be outstanding from time to time.

B. Voting. The holders of the Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings); provided, however, that except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to the Certificate of Incorporation that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series of Preferred Stock are entitled, either separately or together with the holders of one or more other such series of Preferred Stock, to vote thereon pursuant to the Certificate of Incorporation or the DGCL. There shall be no cumulative voting.

C. Common Stock Preemptive Rights. The holders of Common Stock shall not have any preemptive rights to purchase capital stock of the Corporation.

Section 3. Preferred Stock: Dividends.

A. With respect to the Corporation's payment of dividends or distributions, if any, the Series D Preferred Stock shall rank senior in priority to the Series C Preferred Stock, which shall rank senior in priority to the Series B Preferred Stock, which shall rank senior in priority to the Series A Preferred Stock, which shall rank senior in priority to all shares of Common Stock.

B. The Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock, provided that an adjustment to the respective Conversion Prices of the Preferred Stock has been made in accordance with Subsection 7.F of this Article XIII below) unless (in addition to the obtaining of any consents required elsewhere in the Certificate of Incorporation) the holders of the Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Preferred Stock in an amount at least equal to (i) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Preferred Stock as would equal the product of (A) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock and (B) the number of shares of Common Stock issuable upon conversion of a share of Preferred Stock, in each case calculated on the record date for determination of holders entitled to receive such dividend or (ii) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Preferred Stock determined by (A) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance

price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (B) multiplying such fraction by an amount equal to the applicable Conversion Price; *provided* that, if the Corporation declares, pays or sets aside, on the same date, a dividend on shares of more than one class or series of capital stock of the Corporation, the dividend payable to the holders of Preferred Stock pursuant to this Section 3 shall be calculated based upon the dividend on the class or series of capital stock that would result in the highest Preferred Stock dividend; *provided, further* that the payment of any dividends under this Certificate of Incorporation is subject to the prior payment, first, of any and all amounts required under the Deerfield Convertible Notes and Deerfield Warrants, then the prior payment of dividends to the more senior series of Preferred Stock.

Section 4. Preferred Stock: Voting.

A. General. Except as provided in the Bylaws, the shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall have no voting rights, provided that such series of Preferred Stock shall have voting rights to the extent that such voting rights are required under the DGCL and cannot be eliminated by the Certificate of Incorporation.

B. No Cumulative Voting. There shall be no cumulative voting.

C. Series D Preferred Stock Voting Rights Generally. Excluding votes for the election of the Corporation's directors, on any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Series D Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Series D Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of the Certificate of Incorporation and excluding votes for the election of the Corporation's directors, holders of Series D Preferred Stock shall vote together with the holders of Common Stock as a single class.

D. Series D Protective Provisions. The Corporation shall not (and shall not permit any subsidiary to), either directly or indirectly, by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law, the Certificate of Incorporation or any agreement to which the Corporation is a party) the written consent or affirmative vote of the holders of at least a majority of the issued and outstanding shares of Series D Preferred Stock, which majority must include the Deerfield Investor:

(a) liquidate, dissolve or wind up the business and affairs of the Corporation or any of its subsidiaries, effect any merger or consolidation or any other Deemed Liquidation Event, or consent to any of the foregoing;

(b) amend, alter or repeal any provision of the Certificate of Incorporation or Bylaws in a manner that adversely affects the holders of Series D Preferred Stock;

(c) create, or authorize the creation of, or issue or obligate itself to issue shares of any additional class or series of capital stock unless the same ranks junior to the Series D Preferred Stock with respect to distributions upon an Event of Liquidation, the payment of dividends and rights of redemption;

(d) increase the authorized number of shares of Series D Preferred Stock or increase the authorized number of shares of any other class or series of capital stock unless the same ranks junior to the Series D Preferred Stock with respect to distributions upon an Event of Liquidation, the payment of dividends and rights of redemption;

(e) issue any shares of Series D Preferred Stock other than as contemplated by the Facility Agreement, the Deerfield Convertible Notes or the Deerfield Warrants;

(f) reclassify, alter or amend any existing security of the Corporation (i) that is pari passu with the Series D Preferred Stock in respect of distributions payable upon an Event of Liquidation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Series D Preferred Stock in respect of any such right, preference, or privilege or (ii) that is junior to the Series D Preferred Stock in respect of distributions payable upon an Event of Liquidation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Series D Preferred Stock in respect of any such right, preference or privilege;

(g) declare, pay or make any dividends or other distributions to any holders of Common Stock, Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or any other capital stock that is junior to the Series D Preferred Stock in respect of the payment of dividends or distributions, or to any holders of shares of a class or series of capital stock issued following the Series D Original Issue Date that is pari passu to the Series D Preferred Stock in respect of the payment of dividends;

(h) purchase, redeem or otherwise acquire (or pay into or set aside for a sinking fund for such purpose), or permit any subsidiary to purchase, redeem or otherwise acquire (or pay into or set aside for a sinking fund for such purpose) any shares of Common Stock, Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or any other capital stock that is junior to the Series D Preferred Stock, or to any holders of shares of a class or series of capital stock issued following the Series D Original Issue Date that is pari passu to the Series D Preferred Stock; *provided, however*, that the approval by the Series D Preferred Stock and the Deerfield Investor otherwise required by this Subsection 4.D(h)

shall not be required for: (1) shares repurchased from former employees, consultants or directors of the Corporation in accordance with restricted stock purchase agreements with such employees, consultants or directors entered into with Board approval, (2) the repurchase of up to $100,000 of additional shares, in the aggregate, of such junior or pari passu classes or series of capital stock, and (3) redemptions of the Series D Preferred Stock as expressly authorized in the Certificate of Incorporation; or

(i) increase or decrease the authorized number of directors constituting the Board.

E. With respect to any such vote in Subsection 4.D, each share of Series D Preferred Stock outstanding on the record date for determining the stockholders of the Corporation eligible to vote on any such matters shall entitle the holder thereof to one vote.

Section 5. No Redemption. The Corporation shall not have any right or obligation to redeem any shares of Preferred Stock.

Section 6. Liquidation. Upon an Event of Liquidation, subject to the prior payment of any and all amounts required under the Deerfield Convertible Notes, the Deerfield Warrants and the Term Note, the assets and funds of the Corporation legally available for distribution, if any, shall be distributed among the holders of Common Stock and Preferred Stock as follows:

A. Series D Preferred Stock Preference. Before any distribution or payment is made to any holder of Common Stock, Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, the holders of shares of Series D Preferred Stock shall first be entitled to be paid an amount equal to the Liquidation Preference Amount with respect to each share of Series D Preferred Stock, plus any dividends declared but unpaid thereon. If, upon any Event of Liquidation, the assets of the Corporation available for distribution to the holders of the Series D Preferred Stock shall be insufficient to permit payment in full to such holders of the sums which such holders are entitled to receive in such case, then all of the assets available for distribution to holders of the Series D Preferred Stock shall be distributed among and paid to such holders ratably in proportion to the amounts that would be payable to such holders if such assets were sufficient to permit payment in full.

B. Series C Preferred Stock Preference. If the holders of Series D Preferred Stock have been paid in full the Liquidation Preference Amounts to which they are entitled, then, before any distribution or payment is made to any holder of Common Stock, Series A Preferred Stock or Series B Preferred Stock, the holders of shares of Series C Preferred Stock shall be entitled to be paid an amount equal to the Liquidation Preference Amount with respect to each share of Series C Preferred Stock. If, upon any Event of Liquidation, the assets of the Corporation available for distribution to the holders of the Series C Preferred Stock shall be insufficient to permit payment in full to such holders of the sums which such holders are entitled to receive in such case, then all of the assets available for distribution to holders of the Series C Preferred Stock

shall be distributed among and paid to such holders ratably in proportion to the amounts that would be payable to such holders if such assets were sufficient to permit payment in full.

C. Series B Preferred Stock Preference. If the holders of Series D Preferred Stock and Series C Preferred Stock have been paid in full the Liquidation Preference Amounts to which they are entitled, then, before any distribution or payment is made to any holder of Common Stock or Series A Preferred Stock, the holders of shares of Series B Preferred Stock shall be entitled to be paid an amount equal to the Liquidation Preference Amount with respect to each share of Series B Preferred Stock. If, upon any Event of Liquidation, the assets of the Corporation available for distribution to the holders of the Series B Preferred Stock shall be insufficient to permit payment in full to such holders of the sums which such holders are entitled to receive in such case, then all of the assets available for distribution to holders of the Series B Preferred Stock shall be distributed among and paid to such holders ratably in proportion to the amounts that would be payable to such holders if such assets were sufficient to permit payment in full.

D. Series A Preferred Stock Preference. If the holders of Series D Preferred Stock, Series C Preferred Stock and Series B Preferred Stock have been paid in full the Liquidation Preference Amounts to which they are entitled, then, before any distribution or payment is made to any holder of Common Stock, the holders of shares of Series A Preferred Stock shall be entitled to be paid an amount equal to the Liquidation Preference Amount with respect to each share of Series A Preferred Stock. If, upon any Event of Liquidation, the assets of the Corporation available for distribution to the holders of the Series A Preferred Stock shall be insufficient to permit payment in full to such holders of the sums which such holders are entitled to receive in such case, then all of the assets available for distribution to holders of the Series A Preferred Stock shall be distributed among and paid to such holders ratably in proportion to the amounts that would be payable to such holders if such assets were sufficient to permit payment in full.

E. Distribution of Remaining Assets. If, upon an Event of Liquidation, holders of the Preferred Stock shall have been paid in full the Liquidation Preference Amounts to which they are entitled, the entire remaining assets and funds of the Corporation legally available for distribution, if any, shall be distributed among the holders of the Common Stock and the Preferred Stock in proportion to the shares of Common Stock then held by them and the shares of Common Stock that they then have the right to acquire upon conversion of the shares of Preferred Stock then held by them.

F. Effecting a Deemed Liquidation Event.

(a) The Corporation shall not have the power to effect a Deemed Liquidation Event of the type described in subclause (i)(a) of the definition thereof unless the definitive agreement or plan of merger or consolidation for such transaction provides that the consideration payable to the stockholders of the Corporation, (subject to the prior payment of any and all amounts required under

the Deerfield Convertible Notes the Deerfield Warrants and the Term Note) shall be allocated among the holders of capital stock of the Corporation in accordance with the introductory paragraph of this Section 6 and the order of seniority reflected in Subsections 6.A through 6.E above; and, subject to Subsection 6.H below, shall be payable to the stockholders of the Corporation upon the closing of such Deemed Liquidation Event.

(b) In the event of a Deemed Liquidation Event of the type described in subclauses (i)(b) or (ii) of the definition thereof, the Corporation shall, upon the closing of such Deemed Liquidation event, distribute the Available Proceeds to the stockholders of the Corporation in accordance with the introductory paragraph of this Section 6 and the order of seniority reflected in Subsections 6.A through 6.E above. Prior to the distribution provided for in this Subsection 6.F(b), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to pay any and all amounts required under the Deerfield Convertible Notes, the Deerfield Warrants and the Term Note and to discharge expenses incurred in connection with such Deemed Liquidation Event or in the ordinary course of business.

G. Amount Deemed Paid or Distributed. The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any such merger, consolidation, sale, transfer, exclusive license, or other disposition shall be the cash or the value of the property, rights or securities paid or distributed to such holders by the Corporation or the acquiring person, firm or other entity. The value of such property, rights or securities shall be determined in good faith by the Board unless the amount deemed paid or distributed is made in property other than in cash, in which case the value of such distribution shall be the fair market value of such property, determined as follows:

(a) For securities not subject to investment letters or other similar restrictions on free marketability covered by paragraph (b) of this Subsection 6.G:

(i) if traded on a securities exchange, the value shall be deemed to be the volume-weighted average of the closing prices of the securities on such exchange over the thirty (30) period ending three (3) business days prior to the closing of such transaction;

(ii) if actively traded over-the-counter, the value shall be deemed to be the volume-weighted average of the closing bid or sale prices over the thirty (30) day period ending three (3) business days prior to the closing of such transaction; or

(iii) if there is no active public market, the value shall be the fair market value thereof, as reasonably determined by the Board in good faith.

(b) The method of valuation of securities subject to investment letters or other restrictions on free marketability (other than restrictions arising solely by virtue of a

stockholder's status as an affiliate or former affiliate) shall be to take an appropriate discount from the market value as determined as provided in clauses (i), (ii) or (iii) of paragraph (a) of this Subsection 6.G to reflect the adjusted fair market value thereof, all as reasonably determined by the Board in good faith.

H. Allocation of Escrow and Contingent Consideration. In the event of an Deemed Liquidation Event of the type described in clause (i)(a) of the definition thereof, if any portion of the consideration is Additional Consideration, the definitive agreement or agreements pursuant to which such Deemed Liquidation Event occurs shall provide that (a) the Initial Consideration shall be allocated among the holders of capital stock of the Corporation in accordance with this Section 6 as if the Initial Consideration were the only consideration payable in connection with such Deemed Liquidation Event; and (b) any Additional Consideration which becomes payable to the stockholders of the Corporation upon satisfaction of such contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with this Section 6 after taking into account the previous payment of the Initial Consideration as part of the same transaction. For the purposes of this Section 6, consideration placed into escrow or retained as holdback to be available for satisfaction of indemnification or similar obligations in connection with such Deemed Liquidation Event shall be deemed to be Additional Consideration.

Section 7. Optional Conversion. Each share of Preferred Stock shall be convertible, at the option of the holder thereof, into fully paid and nonassessable shares of Common Stock in accordance with this Section 7.

A. Right to Convert. Subject to Subsection 7.C of this Article XIII, each share of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of the Corporation or any transfer agent for such stock, into such number of fully paid and non-assessable shares of Common Stock as is determined by dividing the Original Issue Price for such applicable series by the Conversion Price (as defined below) in effect for such series at the Conversion Time. As of the Series D Original Issue Date, "Initial Conversion Price" shall mean:

i. with respect to any share of Series A Preferred Stock, $0.40 per share,

ii. with respect to any share of Series B Preferred Stock, $0.62 per share,

iii. with respect to any share of Series C Preferred Stock, $0.78 per share, and

iv. with respect to any share of Series D Preferred Stock, $0.78 per share.

The Initial Conversion Price of each series of Preferred Stock is subject to adjustment as provided in this Section 7. "Conversion Price" in the Certificate of Incorporation shall mean, with respect to any share of Preferred Stock, the Initial Conversion Price of said share, as adjusted for stock splits, combinations, recapitalizations, reclassifications and similar events as described herein, and as otherwise adjusted as provided in this Section 7. In connection with any restatement of the Certificate of Incorporation following the Series D Original Issue Date, the Corporation shall update the Initial Conversion Price in this Subsection 7.A to reflect any adjustments pursuant to Subsection 7.D based on events between the Series D Original Issue Date and the date of such restatement.

B. Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of any series of the Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of the series of Preferred Stock the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

C. Mechanics of Conversion.

(a) Notice of Conversion. In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Common Stock, such holder shall (a) provide written notice to the Corporation's transfer agent at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent) that such holder elects to convert all or any number of such holder's shares of Preferred Stock and, if applicable, any event on which such conversion is contingent and (b), if such holder's shares are certificated, surrender the certificate or certificates for such shares of Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent). Such notice shall state such holder's name or the names of the nominees in which such holder wishes the shares of Common Stock to be issued. If required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The shares of Common Stock issuable upon conversion of the specified shares shall be deemed to be outstanding of record as of the Conversion Time. The Corporation shall, as soon as practicable after the Conversion Time (i) issue and deliver to such holder of Preferred Stock, or to his,

her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof and a certificate for the number (if any) of the shares of Preferred Stock represented by the surrendered certificate that were not converted into Common Stock, (ii) pay in cash such amount as provided in Subsection 7.B in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and (iii) pay all declared but unpaid dividends on the shares of Preferred Stock converted.

(b) Reservation of Shares. The Corporation shall at all times when the Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to the Certificate of Incorporation.

(c) Effect of Conversion. All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor, to receive payment in lieu of any fraction of a share otherwise issuable upon such conversion as provided in Subsection 7.B and to receive payment of any dividends declared but unpaid thereon. Any shares of Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

(d) No Further Adjustment. Upon any such conversion, no adjustment to the Conversion Price shall be made for any declared but unpaid dividends on the Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

(e) Taxes. The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Preferred Stock pursuant to this Section 7. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of

Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

D. Adjustments to Applicable Conversion Price for Diluting Issues.

(a) No Adjustment of Conversion Price. No adjustment in the Conversion Price with respect to the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least a majority of the then outstanding shares of the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, respectively, agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock. No adjustment in the Conversion Price with respect to the Series D Preferred Stock shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the Requisite Series D Holders agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

(b) Deemed Issue of Additional Shares of Common Stock.

i. If the Corporation at any time or from time to time after the Series D Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

ii. If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Conversion Price applicable to any series of Preferred Stock pursuant to the terms of Subsection 7.D(c), are

revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Conversion Price applicable to such series of Preferred Stock computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Conversion Price as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (b) shall have the effect of increasing the Conversion Price to an amount which exceeds the lower of (i) the Conversion Price in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

iii. If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Conversion Price applicable to any series of Preferred Stock pursuant to the terms of Subsection 7.D(c) (either because the consideration per share (determined pursuant to Subsection 7.D(d)) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Conversion Price then in effect, or because such Option or Convertible Security was issued before the Series D Original Issue Date for), are revised after the Series D Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions

of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Subsection 7.D(b)(i) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

iv. Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Conversion Price pursuant to the terms of Subsection 7.D(c), the Conversion Price shall be readjusted to such Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

v. If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Conversion Price provided for in this Subsection 7.D(b) shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (ii) and (iii) of this Subsection 7.D(b)). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Conversion Price that would result under the terms of this Subsection 7.D(b) at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of

calculating such adjustment to the Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

(c) Adjustment of Applicable Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Series D Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 7.D(b)), without consideration or for a consideration per share less than the Conversion Price of the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or Series D Preferred Stock in effect immediately prior to such issue, then the Conversion Price of each such applicable series of Preferred Stock shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

"CP_2" shall mean the applicable Conversion Price in effect immediately after such issue of Additional Shares of Common Stock

"CP_1" shall mean the applicable Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock;

"A" shall mean the number of shares of Common Stock outstanding immediately prior to such issue of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issue or upon conversion or exchange of Convertible Securities (including the Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

"B" shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued at a price per share equal to CP_1 (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP_1); and

"C" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

(d) Determination of Consideration. For purposes of this Subsection 7.D, the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

i. Cash and Property: Such consideration shall:

(1) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(2) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board; and

(3) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (1) and (2) above, as determined in good faith by the Board.

ii. Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Subsection 7(D)(b), relating to Options and Convertible Securities, shall be determined by dividing:

(1) The total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(2) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

(e) Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Conversion Price applicable to a series of Preferred Stock pursuant to the terms of Subsection 7.D(c), and such issuance dates occur within a period of no more than ninety (90) days from the first such issuance to the final such issuance, then, upon the final such issuance, such Conversion Price shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

E. Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Series D Original Issue Date effect a subdivision of the outstanding Common Stock, the Conversion Price applicable to a series of Preferred Stock that is in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Series D Original Issue Date combine the outstanding shares of Common Stock, the applicable Conversion Price in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this Subsection 7.E shall become effective at the close of business on the date the subdivision or combination becomes effective.

F. Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series D Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the Conversion Price applicable to the given series of Preferred Stock in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the applicable Conversion Price then in effect by a fraction:

(a) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(b) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Conversion Price shall be adjusted pursuant to this Subsection 7.F as of the time of actual payment of such dividends or distributions; and (b) that no such adjustment shall be made if the holders of the applicable Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of the applicable Preferred Stock had been converted into Common Stock on the date of such event.

G. Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series D Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 3 of this Article XIII do not apply to such dividend or distribution, then and in each such event the holders of the applicable Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of the applicable Preferred Stock had been converted into Common Stock on the date of such event.

H. Adjustment for Merger or Reorganization, etc. Subject to the provisions of Section 6, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Subsections 7.D, 7.F or 7.G, then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Preferred Stock shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board) shall be made in the application of the provisions in this Section 7 with respect to the rights and interests thereafter of the holders of the Preferred Stock, to the end that the provisions set forth in this Section 7 (including provisions with respect to changes in and other adjustments of the applicable Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Preferred Stock. For the avoidance of doubt, nothing in this Subsection 7.H shall be construed as preventing the holders of Preferred Stock from seeking any appraisal rights to which they are otherwise entitled under the DGCL in connection with a merger triggering an adjustment hereunder, nor shall this Subsection 7.H be deemed conclusive evidence of the fair value of shares of Preferred Stock in any such appraisal proceeding.

I. Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of a Conversion Price pursuant to this Section 7, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than ten (10) days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of the applicable Preferred Stock a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which the applicable Preferred Stock is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of the applicable Preferred Stock (but in any event not later than ten (10) days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the applicable Conversion Price then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of the applicable Preferred Stock.

J. Notice of Record Date. In the event:

(a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security; or

(b) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Event of Liquidation; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation,

then, and in each such case, the Corporation will send or cause to be sent to the holders of the Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of the Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such

exchange applicable to the Preferred Stock and the Common Stock. Such notice shall be sent at least ten (10) days prior to the earlier of the record date or effective date for the event specified in such notice.

Section 8. Mandatory Conversion

A. Trigger Events. Upon the closing of (x) a Qualified Public Offering, (y) an underwritten public offering of Common Stock pursuant to a registration statement under the Securities Act, that is not a Qualified Public Offering but is approved by the Deerfield Investor and the Board or (z) the date specified by written consent or agreement of the holders of a majority of the then-outstanding shares of Preferred Stock, voting together as a separate class on an as-converted to Common Stock basis, which written consent or agreement shall include the written consent or agreement of the Requisite Series D Holders, then (i) all outstanding shares of Preferred Stock shall automatically be converted into shares of Common Stock (the time of such closing or the date and time of the event specified in such vote or written consent is referred to in the Certificate of Incorporation as the "Mandatory Conversion Time"), at the then effective conversion rate as calculated pursuant to Subsection 7.A and (ii) such shares may not be reissued by the Corporation.

B. Procedural Requirements. All holders of record of shares of Preferred Stock shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 8. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Preferred Stock in certificated form shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Preferred Stock converted pursuant to Subsection 8.A, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the Mandatory Conversion Time (notwithstanding the failure of the holder or holders thereof to surrender any certificates at or prior to such time), except only the rights of the holders thereof, upon surrender of any certificate or certificates of such holders (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the next sentence of this Subsection 8.B. As soon as practicable after the Mandatory Conversion Time and, if applicable, the surrender of any certificate or certificates (or lost certificate affidavit and agreement) for Preferred Stock, the Corporation shall (a) issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and (b) pay cash as provided in Subsection 7.B in lieu of any fraction of a share

of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Preferred Stock converted. Such converted Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

Section 9. Notice of Certain Events. In case the Corporation shall propose at any time or from time to time (A) to declare or pay any dividend payable in stock of any class to the holders of Common Stock or to make any other distribution to the holders of Common Stock, (B) to offer to the holders of Common Stock rights or warrants to subscribe for or to purchase any additional shares of Common Stock or shares of stock of any class or any other securities, rights or options, (C) to effect any reclassification of its Common Stock, (D) to effect any consolidation, merger or sale, transfer or other disposition of all or substantially all of the property, assets or business of the Corporation which would, if consummated adjust the Conversion Price or the securities issuable upon conversion of shares of Preferred Stock, or (E) to effect the liquidation, dissolution or winding up of the Corporation, then, in each such case, the Corporation shall mail to each holder of shares of Preferred Stock at such holder's address as it appears on the transfer books of the Corporation, a written notice of such proposed action, which shall specify (1) the date on which a record is to be taken for the purpose of such dividend, distribution or rights or warrants or, if a record is not to be taken, the date as of which the holders of shares of Common Stock or record to be entitled to such dividend, distribution or rights are to be determined, or (2) the date on which such reclassification, consolidation, merger, sale, conveyance, dissolution, liquidation or winding up is expected to become effective, and such notice shall be so given as promptly as possible but in any event at least ten (10) business days prior to the applicable record, determination or effective date, specified in such notice.

ARTICLE XIV.

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim against the Corporation, its directors, officers or employees arising pursuant to any provision of the DGCL or the Certificate of Incorporation or Bylaws or (iv) any action asserting a claim against the Corporation, its directors, officers or employees governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten (10) days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this Article XIV shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of

this Article XIV (including, without limitation, each portion of any sentence of this Article XIV containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

ARTICLE XV.

The Corporation shall not be governed by or subject to Section 203 of the DGCL.

ARTICLE XVI.

This Certificate of Incorporation shall be effective as of the date on which it is received for filing by the office of the Secretary of State for the State of Delaware.

IN WITNESS WHEREOF, the sole incorporator of the Corporation has executed this Certificate of Incorporation on behalf of the Corporation this 28 day of May, 2014.

KEMPHARM, INC.

By: _____
Name: David W. Pollak
Title: Sole Incorporator

[Signature Page to Certificate of Incorporation]

Exhibit C

PROMISSORY NOTE

THIS NOTE MAY BE ISSUED WITH ORIGINAL ISSUE DISCOUNT ("OID") FOR U.S. FEDERAL INCOME TAX PURPOSES. THE AMOUNT OF OID SHALL BE MUTUALLY DETERMINED BY THE ORIGINAL HOLDER AND THE COMPANY IN GOOD FAITH AND IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTIONS 1271 THROUGH 1275 OF THE U.S. INTERNAL REVENUE CODE. THE ISSUE PRICE, AMOUNT OF OID, ISSUE DATE AND YIELD TO MATURITY WITH RESPECT TO THIS NOTE MAY BE OBTAINED BY WRITING TO THE BORROWER AT THE FOLLOWING ADDRESS: 2656 CROSSPARK ROAD, SUITE 100, CORALVILLE, IOWA 52241; ATTENTION: GORDON K. JOHNSON, FAX NUMBER: (319) 665-2577

[ ], 20[ ]

FOR VALUE RECEIVED, KemPharm, Inc., a Delaware corporation (the "Maker"), by means of this Promissory Note (this "Note"), hereby unconditionally promises to pay to Deerfield Private Design Fund III, L.P. (the "Payee"), a principal amount equal to the lesser of (a) [ ] ($[ ]) and (b) the aggregate amount of Disbursements allocated to the Payee pursuant to Section 2.2 of the Facility Agreement referenced to below, in lawful money of the United States of America and in immediately available funds, on the dates provided in the Facility Agreement.

This Note is a Term Note referred to in the Facility Agreement dated as of June 2, 2014 between the Maker, the Payee and the other parties thereto (as modified and supplemented and in effect from time to time, the "Facility Agreement"), with respect to the Loan made by the Payee thereunder. Capitalized terms used herein and not expressly defined in this Note shall have the respective meanings assigned to them in the Facility Agreement.

This Note shall bear interest on the principal amount hereof pursuant to the provisions of the Facility Agreement.

The Maker shall make all payments to the Payee of interest and principal under this Note in the manner provided in and otherwise in accordance with the Facility Agreement.

If an Event of Default has occurred and is continuing, this Note may in accordance with the applicable provisions of the Facility Agreement, become immediately due and payable. This Note shall be assigned or transferred in accordance with the terms of the Facility Agreement. Any such assignment shall be evidenced by an assignment agreement between the Payee and the assignee and by the issuance of a new Note by the Maker in the name of the transferee with terms and conditions identical to those herein and reflecting the principal amount transferred thereto. If the entire principal amount of this Note is not transferred, a new Note in the name of the Payee shall also be issued by the Maker reflecting the principal amount remaining after the transfer. This Note is subject to the tax gross-up under Section 2.5 of the Facility Agreement.

Subject to the terms of the Facility Agreement, all payments of any kind due to the Payee from the Maker pursuant to this Note shall be made in the full face amount thereof, free and clear of, and without deduction or withholding for, any present or future taxes.

The Maker shall pay all costs of collection, including, without limitation, all reasonable and documented out-of-pocket, legal expenses and attorneys' fees, paid or incurred by the Payee in collecting and enforcing this Note, in each case, to the extent required pursuant to Section 6.3 of the Facility Agreement.

Other than those notices required to be provided by Payee to Maker under the terms of the Facility Agreement, the Maker and every endorser of this Note, or the obligations represented hereby, expressly waives presentment, protest, demand, notice of dishonor or default, and notice of any kind with respect to this Note and the Facility Agreement or the performance of the obligations under this Note and/or the Facility Agreement. No renewal or extension of this Note or the Facility Agreement, no delay in the enforcement of payment of this Note or the Facility Agreement, and no delay or omission in exercising any right or power under this Note or the Facility Agreement shall affect the liability of the Maker or any endorser of this Note.

No delay or omission by the Payee in exercising any power or right hereunder shall impair such right or power or be construed to be a waiver of any default, nor shall any single or partial exercise of any power or right hereunder preclude the full exercise thereof or the exercise of any other power or right. The provisions of this Note may be waived or amended only in a writing signed by the Maker and the Payee. This Note may be prepaid in whole or in part in accordance with the provisions of the Facility Agreement.

All questions concerning the construction, validity, enforcement and interpretation of this Note shall be governed by and construed and enforced in accordance with the laws of the State of New York applicable to contracts made and to be performed in such State. All legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Note (whether brought against Payee or its affiliates, directors, officers, shareholders, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Payee hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Payee hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to Payee at the address in effect for notices to it under the Facility Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. The Payee hereby waive all rights to a trial by jury.

[Signature page follows]

IN WITNESS WHEREOF, an authorized representative of the Maker has executed this Note as of the date first written above.

KEMPHARM, INC.

By: _____

Name:
Title:

Exhibit D

Use of Proceeds

The Borrower will use the proceeds of the Loan for clinical trials and general corporate purposes.

Exhibit E

THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOF HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR ANY STATE SECURITIES LAW, AND MAY NOT BE SOLD, TRANSFERRED, ASSIGNED, PLEDGED, HYPOTHECATED OR OTHERWISE DISPOSED OF OR EXERCISED UNLESS (I) A REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS SHALL HAVE BECOME EFFECTIVE WITH REGARD THERETO, OR (II) AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS IS AVAILABLE IN CONNECTION WITH SUCH OFFER, SALE OR TRANSFER.

AN INVESTMENT IN THESE SECURITIES INVOLVES A HIGH DEGREE OF RISK. HOLDERS MUST RELY ON THEIR OWN ANALYSIS OF THE INVESTMENT AND ASSESSMENT OF THE RISKS INVOLVED.

Warrant to Purchase
[ ] shares

Warrant Number

Warrant to Purchase Shares of Series D Preferred Stock
of
Kempharm, Inc.

THIS CERTIFIES that Deerfield Private Design Fund III, L.P. or any subsequent holder hereof ("Holder") has the right to subscribe for and acquire from Kempharm, Inc., a Delaware corporation (the "Company") (i) prior to the Mandatory Conversion Time (as defined below), [ ] ([ ]), fully paid and nonassessable shares of the Company's Series D Convertible Preferred Stock, no par value ("Series D Preferred Stock"), and (ii) to the extent unexercised at the Mandatory Conversion Time (as defined below), from and after the Mandatory Conversion Time a number of fully paid and nonassessable shares of the Company's Common Stock, no par value ("Common Stock"), equal to the Common Stock Amount (as defined below) (such shares of Series D Preferred Stock or Common Stock, as the case may be, issuable upon exercise of this Warrant, the "Shares"), subject to the terms set forth herein, at a price equal to the Exercise Price as defined in Section 3 below, at any time during the Term (as defined below).

Holder agrees with the Company that this Warrant to Purchase Shares of the Company (this "Warrant" or this "Agreement") is issued and all rights hereunder shall be held subject to all of the conditions, limitations and provisions set forth herein.

1. Date of Issuance and Term.

This Warrant shall be deemed to be issued on [ ] ("Date of Issuance"). The term of this Warrant begins on the Date of Issuance and ends at 5:00 p.m., New York City time, on **[TEN YEARS FROM DATE OF ISSUANCE]** (the "Term"). This Warrant was issued in conjunction with that certain Facility Agreement (the "Facility Agreement") by and among the Company and Deerfield Private Design Fund III, L.P., dated June 2, 2014, entered into in conjunction herewith.

Notwithstanding anything herein to the contrary, the Company shall not issue to the Holder, and the Holder may not acquire, a number of Shares upon exercise of this Warrant to the extent that, upon such exercise, the number of shares of Common Stock then beneficially owned by the Holder and its Affiliates and any other persons or entities whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (including shares held by any "group" of which the Holder is a member, but excluding shares beneficially owned by virtue of the ownership of securities or rights to acquire securities that have limitations on the right to convert, exercise or purchase similar to the limitation set forth herein) would exceed 9.985% of the total number of the shares of Common Stock then issued and outstanding (the "9.985% Cap")); provided that the 9.985% Cap shall not apply to the extent that shares of Common

Stock are not deemed to constitute "equity securities" pursuant to Rule 13d-1(i) under the Exchange Act and, provided further, that the 9.985% Cap shall not apply to an exercise effected following receipt of a Major Transaction Notice (as defined below) in respect of a Major Transaction (as defined below) described in Section 5(c)(i)(A) below in which the Company is not the surviving entity until consummation or abandonment of such Major Transaction.

"Affiliate" means any person or entity that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a person or entity, as such terms are used in and construed under Rule 144 under the Securities Act of 1933, as amended (the "Securities Act"). With respect to a Holder of Warrants, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as such Holder will be deemed to be an Affiliate of such Holder.

For purposes hereof:

"Business Day" means a day other than a day on which commercial banks are authorized or required by law to close in the City of New York.

"Common Stock Amount" means a number of shares of Common Stock of the Company equal to (x) the number of shares of Series D Preferred Stock issuable upon a full Cash Exercise of this Warrant immediately prior to the Mandatory Conversion Time, multiplied by (y) the Per Share Underlying Common Amount at such time.

"Exchange Act" means the Securities Exchange Act of 1934, as amended.

"Fair Market Value" means the fair market value as mutually determined by the Company and the Required Holders (as defined below), subject to the dispute resolution provisions set forth in Section 3(b) below.

"Holder" means Deerfield Special Situations International Master Fund, L.P. and any transferee or assignee pursuant to the terms of this Warrant.

"Initial Warrantholders" shall mean the initial Holders of this Warrant and the initial holders of the other Warrants issued pursuant to the Facility Agreement.

"Investor Agreements" shall mean the Right of First Refusal and Co-Sale Agreement, dated as of June 2, 2014, by and among the Company and the stockholders party thereto, the Investors' Rights Agreement (the "Investor Rights Agreement"), dated as of June 2, 2014, by and among the Company and the stockholders party thereto, and the Voting Agreement, dated as of June 2, 2014, by and among the Company and the stockholders party thereto.

"Mandatory Conversion Time" means the time of any mandatory conversion of the shares of Series D Preferred Stock required by the Company's certificate of incorporation (as it may be amended or restated from time to time (the "Charter")).

"Per Share Underlying Common Amount" means the number of shares of Common Stock, at any relevant time, that would be issuable upon conversion of one share of Series D Preferred Stock, reflected as a fraction to the third decimal.

"Required Holders" means holders of a majority in interest of the Warrants.

2. Exercise.

(a) Manner of Exercise. During the Term, this Warrant may be Exercised as to all or any lesser number of whole Shares covered hereby (the "Warrant Shares") by sending the Exercise Form attached hereto as Exhibit A (the "Exercise Form") duly completed and executed, for each Share as to which this Warrant is Exercised, at the office of the Company, 2656 Crosspark Road, Suite 100, Coralville, IA 52441, or at such other office or agency as the Company may designate in writing, by overnight mail, facsimile (319) 665-2577, or electronic mail (rjohnson@kempharm.com) (such exercise hereinafter called the "Exercise" of this Warrant).

(b) Date of Exercise. The "Date of Exercise" of the Warrant shall be defined as the date that the Exercise Form attached hereto as Exhibit A, completed and executed, is sent to the Company (whether transmission by the Holder is by facsimile, electronic mail or mail), provided that the Exercise Price is satisfied, within two (2) Business Days thereafter. Upon delivery of the Exercise Form to the Company by electronic mail, facsimile or otherwise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been Exercised, irrespective of the date such Warrant Shares are issued or delivered. The Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date the final Exercise Notice is delivered to the Company. Execution and delivery of the Exercise Notice shall have the same effect as cancellation of the original Warrant and issuance of a New Warrant evidencing the right to purchase the remaining number of Warrant Shares, if any.

(c) Delivery of Shares Upon Exercise. Upon an exercise of this Warrant, within the Delivery Period (as defined below), the Company shall issue and deliver (or cause its transfer agent (the "Transfer Agent")) to issue and deliver, if applicable), in accordance to the terms hereof to or upon the order of the Holder, that number of Shares for the portion of this Warrant exercised as shall be determined in accordance herewith. Upon the Exercise of this Warrant or any part hereof, the Company shall, at its own cost and expense, take all necessary action, including the instructions to and the costs associated with obtaining and delivering an opinion of counsel, if applicable, to assure that any such Transfer Agent shall, to the extent applicable issue stock certificates in the name of Holder (or its nominee) or such other persons as designated by Holder and in such denominations to be specified at Exercise representing the number of Shares issuable upon such Exercise. "Delivery Period" means the period beginning on the Date of Exercise and ending (i) in the case of an exercise made prior to an IPO Event, fifteen (15) Business Days after such Date of Exercise and (ii) in the case of an exercise made after an IPO Event, three (3) Business Days after such Date of Exercise. "Exercise Shares" means the number of Shares that are issuable by the Company in respect of an exercise hereunder.

(d) Delivery Failure. In addition to any other remedies which may be available to the Holder, in the event that the Company fails for any reason to effect issuance or delivery of the Exercise Shares by the end of the Delivery Period (a "Delivery Failure"), the Holder will be entitled to revoke all or part of the relevant Exercise Form by delivery of a notice to such effect to the Company whereupon the Company and the Holder shall each be restored to their respective positions immediately prior to the delivery of such notice, except that the liquidated damages described herein shall be payable through the date notice of revocation or rescission is given to the Company (or until the date the applicable Exercise Shares are delivered, if earlier).

(e) Legends.

(i) Restrictive Legend. The Holder understands that, for so long as required pursuant to the Investor Agreements, the Exercise Shares shall contain the restrictive legends required pursuant to the terms of the Investor Agreements (the "IRA Legends"). The Holder further understands that following the later of the Mandatory Conversion Time and the IPO Event, until the Exercise Shares have been registered for resale under the Securities Act or otherwise may be sold pursuant to Rule 144 under the Securities Act or an exemption from registration under the Securities Act without any restriction as to the number of securities as of a particular date that can then be immediately sold is available, the Exercise Shares may bear a restrictive legend (the "Securities Legend") or the Securities Legend shall apply, as applicable, in substantially the following form (and a stop-transfer order may be placed against transfer of the certificates for such securities):

> "THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE SOLD, TRANSFERRED OR ASSIGNED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER SAID ACT, OR PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER SAID ACT INCLUDING, WITHOUT LIMITATION, PURSUANT TO RULES 144 OR 144A UNDER SAID ACT OR PURSUANT TO A PRIVATE SALE EFFECTED UNDER APPLICABLE FORMAL OR INFORMAL SEC INTERPRETATION OR GUIDANCE, SUCH AS A SO-CALLED "4(1) AND A HALF" SALE."

(ii) Removal of Restrictive Legends. The Exercise Shares shall not contain the Securities Legend and no legend (other than the IRA Legends, if required under the Investor Agreements) shall apply, as applicable, restricting the transfer thereof: (A) while a registration statement covering the sale or resale of such security is effective under the Securities Act, or (B) following any sale of such Exercise Shares pursuant to Rule 144, or (C) if such Exercise Shares are eligible for sale under Rule 144(b)(1) without volume restriction, or (D) if transfer restrictions are not required under applicable requirements of the Securities Act (including judicial interpretations and pronouncements issued by the staff of the SEC) (collectively, the "Unrestricted Conditions"). Upon request to the Company by Holder to remove the Securities Legend from any Exercise Shares or to issue Exercise Shares without the Securities Legend upon exercise of the Warrant, in either case based on an Unrestricted Condition being met, the Company shall cause its counsel to issue a legal opinion to the Transfer Agent promptly after the satisfaction of an Unrestricted Condition if required by the Company's transfer agent to effect the issuance of the Exercise Shares without such restrictive legend or removal of the legend hereunder, subject, in respect of a legend removal request prior to effectiveness of a registration statement covering the resale of the Warrant Shares, receipt by such counsel of certification of the holder of the Exercise Shares that it is not at such time, and has not been during the previous three month period, an affiliate of the Company (a "Rule 144 Certification"). If an Unrestricted Condition is met at the time of issuance of the Exercise Shares, then such Exercise Shares shall be issued free of all legends (other than any IRA Legends required under the Investor Agreements). The Company agrees that following such time as an Unrestricted Condition is met or such legend is otherwise no longer required under this Section 2(e), it will, upon delivery of a written request to the Company by the holder of the Exercise Shares to remove the Securities Legend based upon an Unrestricted Condition being met, no later than the date (such date, the "Legend Removal Date") that is the later of (A) three (3) Trading Days (or fifteen (15) Business Days if prior to an IPO Event) following the delivery by the holder to the Company or the Transfer Agent of the Exercise Shares, issued with such restrictive legend and (B) if (and only if) a Rule 144 Certification is required by the second sentence of this paragraph, two (2) Business Days after the date of delivery of the Rule 144 Certification to counsel to the Company, deliver or cause to be delivered to such holder the Exercise Shares free of all restrictive legends, and/or a confirmation (or electronic transfer) confirming in respect of such shares that it is free from all restrictive and other legends (other than any IRA Legends then required under the Investor Agreements).

(iii) Sale of Unlegended Shares. Holder agrees that the removal of the restrictive legend from any securities as set forth in
Section 2(e) above is predicated upon the Company's reliance that the Holder will sell such Exercise Shares pursuant to either the registration requirements of the Securities Act, including any applicable prospectus delivery requirements, or a valid exemption therefrom, and that if such securities are sold pursuant to a Registration Statement, they will be sold in compliance with the plan of distribution set forth therein.

(f) Cancellation of Warrant. This Warrant shall be canceled upon the full Exercise, of this Warrant, and, as soon as practical after the Date of Exercise, Holder shall be entitled to receive Shares for the number of shares purchased upon such Exercise of this Warrant, and if this Warrant is not Exercised in full, Holder shall be entitled to receive a new Warrant (containing terms identical to this Warrant) representing any unexercised portion of this Warrant in addition to such Shares; provided, however, as set forth in
Section 2(b), Holder shall not be required to physically surrender this warrant if the Warrant is not exercised in full.

(g) Holder of Record. Each person in whose name any Warrant for Shares is issued shall, for all purposes, be deemed to be the Holder of record of such shares on the Date of Exercise of this Warrant, irrespective of the date of delivery or issuance of the Shares purchased upon the Exercise of this Warrant.

(h) Delivery of Electronic Shares. Following the Mandatory Conversion Time, in lieu of delivering physical certificates representing the Common Stock issuable upon Exercise or legend removal, or representing Failure Payment Shares, provided the Transfer Agent is participating in the DTC Fast Automated Securities Transfer ("FAST") program, upon written request of the Holder, the Company shall use its best efforts to cause its Transfer Agent to electronically transmit the Common Stock issuable upon Exercise to the Holder by crediting the account of the Holder's prime broker with DTC through its Deposit Withdrawal Agent Commission (DWAC) system. The time periods for delivery and penalties described herein shall apply to the electronic transmittals described herein. Any delivery not effected by electronic transmission shall be effected by delivery of physical certificates.

(i) Buy-In. Following the Mandatory Conversion time, in addition to any other rights available to the Holder, if the Company fails to cause its Transfer Agent to transmit to the Holder a certificate or certificates, or electronic shares

through DWAC, representing the Exercise Shares pursuant to an Exercise on or before the Delivery Period, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Exercise Shares which the Holder anticipated receiving upon such Exercise (a "Buy-In"), then the Company shall (1) pay in cash to the Holder the amount by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (A) the number of Exercise Shares that the Company was required to deliver to the Holder in connection with the Exercise at issue times and (B) the price at which the sell order giving rise to such purchase obligation was executed, and (2) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Exercise Shares for which such Exercise was not honored or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its Exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted Exercise to cover the sale of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (1) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In, together with applicable confirmations and other evidence reasonably requested by the Company. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver certificates representing shares of Common Stock upon Exercise of the Warrant as required pursuant to the terms hereof.

3. Payment of Warrant Exercise Price for Cash Exercise or Cashless Exercise; Cashless Major Exercise and Cashless Default Exercise.

(a) Exercise Price. The Exercise Price ("Exercise Price") shall equal $[ ] per share (with respect to shares of Series D Preferred Stock) and, from and after the Mandatory Conversion Time shall equal the Exercise Price in effect immediately prior to the Mandatory Conversion Time divided by the prevailing Per Share Underlying Common Amount, subject to adjustment pursuant to the terms hereof, including but not limited to Section 5 below.

Payment of the Exercise Price may be made by either of the following, or a combination thereof, at the election of Holder:

(i) Cash Exercise: The Holder may exercise this Warrant in cash, bank or cashier's check, wire transfer or through a reduction of an amount of principal outstanding under any Notes (as defined in the Facility Agreement) in accordance with Section 2.3(b) of the Facility Agreement, then held by the Holder (a "Cash Exercise"); or

(ii) Cashless Exercise: The Holder, at its option, may exercise this Warrant in a cashless exercise transaction. In order to effect a Cashless Exercise, the Holder shall send to the Company (via overnight mail, electronic mail or facsimile) at its principal office a notice of cashless election, in which event the Company shall issue Holder a number of Shares computed using the following formula (a "Cashless Exercise"):

$$X = Y (A-B)/A$$

where: X = the number of Shares to be issued to Holder.

Y = the number of Shares for which this Warrant is being Exercised.

A = (i) prior to an IPO Event, the Fair Market Value of each Share and (ii) after an IPO Event the product of (x) the applicable Per Share Underlying Common Amount immediately following such Exercise multiplied by (y) the Market Price of one (1) share of Common Stock (for purposes of this Section 3(a)(ii), where "Market Price," as of any date, means the Volume Weighted Average Price (as defined herein) of a share of the Company's Common Stock during the ten (10) consecutive Trading Day period immediately preceding the date in question); provided, that if the Mandatory Conversion Time shall have occurred, such amount shall equal the Market Price of one (1) share of Common Stock.

B = the Exercise Price.

As used herein, the "Volume Weighted Average Price" for any security as of any date means the volume weighted average sale price of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg Financial Markets or an equivalent, reliable reporting service mutually acceptable to and hereafter designated by holders of a majority in interest of the Warrants and the Company ("Bloomberg"), or, if no volume weighted average sale price is reported for such security, then the last closing trade price of such security as reported by Bloomberg, or, if no last closing trade price is reported for such security by Bloomberg, the average of the bid prices of any market makers for such security that are listed in the over the counter market by the Financial Industry Regulatory Authority, Inc. or on the OTC Pink Market operated by the OTC Markets Group, Inc. If the Volume Weighted Average Price cannot be calculated for such security on such date in the manner provided above (including because the Company's Shares are not then listed on any principal securities exchange or trading market or any over the counter market), the Volume Weighted Average Price shall be the Fair Market Value for which the calculation of the Volume Weighted Average Price is required in order to determine the Exercise Price of such Warrants. "Trading Day" shall mean any day on which the Shares are traded for any period on the principal securities exchange or other securities market on which the Shares are then being traded or, prior to such time as the Shares are so traded, shall mean any Business Day.

For purposes of Rule 144 and sub-section (d)(3)(x) thereof, it is intended, understood and acknowledged that the Shares issuable upon Exercise of this Warrant in a Cashless Exercise transaction and the shares of Common Stock issuable upon conversion of such Shares shall be deemed to have been acquired at the time this Warrant was originally issued. Moreover, it is intended, understood and acknowledged that the holding period for the Shares issuable upon Exercise of this Warrant in a Cashless Exercise transaction and the shares of Common Stock issuable upon conversion of such Shares shall be deemed to have commenced on the date this Warrant was issued. As provided in Section 2(b), the Holder shall only be required to physically surrender this Warrant in the event that the Holder is exercising this Warrant in full.

(b) Dispute Resolution. In the case of a dispute as to the determination of the closing price, the Volume Weighted Average Price or the Fair Market Value or the arithmetic calculation of the Exercise Price, Market Price or any Major Transaction Warrant Early Termination Price, the Company shall submit the disputed determinations or arithmetic calculations via facsimile within two (2) Business Days of receipt, or deemed receipt, of the Exercise Notice, or other event giving rise to such dispute, as the case may be, to the Holder. If the Required Holders and the Company are unable to agree upon such determination or calculation within two (2) Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two (2) Business Days submit via facsimile (i) the disputed determination of the closing price, the Volume Weighted Average Price or the Fair Market Value or Major Transaction Early Warrant Early Termination Price to a nationally recognized, independent, reputable investment bank selected by the Company and approved by the Required Holders, which investment bank shall not have provided services to either the Company, the Holder or any of their respective Affiliates during the five-year period preceding the date of its selection, or (ii) the disputed arithmetic calculation of the Exercise Price, Market Price or any Major Transaction Warrant Early Termination Price to the Company's independent, outside accountant. The Company shall exercise commercially reasonable efforts to cause the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Required Holders of the results no later than five (5) Business Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error and the Company shall pay the fees and costs of such investment banker or accountant.

4. Transfer. Subject to the provisions of Section 8 of this Warrant, this Warrant may be transferred on the books of the Company, in whole or in part, in person or by attorney, upon surrender of this Warrant properly completed and endorsed. This Warrant shall be canceled upon such surrender and, as soon as practicable thereafter, the person to whom such transfer is made shall be entitled to receive a new Warrant or Warrants as to the portion of this Warrant transferred, and Holder shall be entitled to receive a new Warrant as to the portion hereof retained.

5. Adjustments Upon Certain Events.

(a) Participation. The Holder, as the holder of this Warrant, shall be entitled to receive from the Company such amount equal to the amount of dividends paid and distributions of any kind made to the holders of Series D Preferred Stock or Common Stock to the same extent as if the Holder had Exercised this Warrant into Shares (or, as applicable, had converted such Shares of Series D Preferred Stock into shares of Common Stock) and had held such Shares or conversion shares, as applicable, on the record date for such dividends and distributions. Payments under the preceding sentence shall be made concurrently with the dividend or distribution to the holders of Shares or Common Stock, as the case may be.

(b) Recapitalization or Reclassification. If the Company shall at any time effect a stock split, payment of stock dividend, recapitalization, reclassification or other similar transaction of such character that the Shares (whether shares of Series D Preferred Stock or Common Stock) shall be changed into or become exchangeable for a larger or smaller number of shares, then upon the effective date thereof, the number of Shares which Holder shall be entitled to purchase upon Exercise of this Warrant shall be increased or decreased, as the case may be, in direct proportion to the increase or decrease in the number of Shares by reason of such stock split, payment of stock dividend, recapitalization, reclassification or similar transaction, and the Exercise Price shall be, in the case of an increase in the number of shares, proportionally decreased and, in the case of decrease in the number of shares, proportionally increased. The Company shall give Holder the same notice it provides to holders of Shares of any transaction described in this Section 5(b).

(c) Rights Upon Major Transaction.

(i) Major Transaction. In the event that a Major Transaction (as defined below) occurs, then the Holder, at its option, may require the Company to redeem all or any portion of the Holder's outstanding Warrants in accordance with Section 5(c)(iii) below. In the event the Holder shall not have exercised any of its rights under the immediately preceding sentence within the applicable time periods set forth herein, then the Major Transaction shall be treated as an Assumption (as defined below) in accordance with Section 5(c)(ii) below. Notwithstanding anything herein to the contrary, the Holder may waive the above provisions of this Section 5(c) with respect to any Major Transaction and, without limitation, may elect to Exercise this Warrant prior to any Major Transaction.

Each of the following events shall constitute a "Major Transaction":

(A) a consolidation, merger, exchange of shares, recapitalization, reorganization, business combination or other similar event, (1) following which the holders of shares of voting stock of the Company immediately preceding such consolidation, merger, exchange, recapitalization, reorganization, combination or event either (a) no longer hold a majority of the shares of voting stock or (b) no longer have the ability to elect a majority of the board of directors of the Company, or (2) as a result of which Shares or shares of voting stock shall be changed into (or the holders of Shares or shares of Common Stock become entitled to receive) the same or a different number of shares of the same or another class or classes of stock or securities of another entity (collectively, a "Change of Control Transaction");

(B) the sale or transfer in one transaction or a series of related transactions of (i) all or substantially all of the assets of the Company to any Person or (ii) assets of the Company for a purchase price equal to more than 50% of the Applicable Value (as defined below);

(C) a third party purchase, tender or exchange offer made to the holders of outstanding Shares or shares of any class(es) or series capital stock, such that following such purchase, tender or exchange offer a Change of Control Transaction shall have occurred;

(D) the liquidation, bankruptcy, insolvency, dissolution or winding-up (or the occurrence of any analogous proceeding) affecting the Company;

(E) after an IPO Event the shares of Common Stock cease to be listed on any Eligible Market on which they are then listed or quoted and are not promptly re-listed or requoted on an Eligible Market;

(F) at any time after an IPO Event, the shares of Common Stock cease to be registered under Section 12 of the Exchange Act; or

(G) any "Event of Liquidation" occurs under the terms of the Charter;

provided, however, that, a Major Transaction or Change of Control shall not be deemed to have occurred solely as a result of the transfer of ownership of any shares of capital stock of the Company without the consent or agreement of the Company; provided that such proviso shall not apply to an event specified in subsection (G) of the definition of Major Transaction.

(ii) Assumption. The Company shall not enter into or be party to a Major Transaction that is to be treated as an Assumption pursuant to Section 5(c)(i), unless the Successor Entity assumes in writing all of the obligations of the Company under this Warrant, the Facility Agreement (and any notes issued thereunder) and provides registration rights comparable to those provided to the initial Holder under the Investor Rights Agreement, in accordance with the provisions of this Section (ii) (an "Assumption") pursuant to written agreements and instruments ("Assumption Agreements") necessary to effect such Assumption in form and substance reasonably satisfactory to the Required Holders and approved by the Required Holders prior to such Major Transaction (such consents and approvals not to be unreasonably withheld or delayed), including the delivery to each holder of Warrants in exchange for such Warrants a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to the Warrants (the "Successor Warrant"), including, without limitation, representing the appropriate number of shares of the Successor Entity having the exercise rights contained herein (including but not limited to the prevailing aggregate Exercise Price at such time and underlying number and type of securities, based on the price per share or conversion ratio to be received by the holders of Shares in the Major Transaction) and containing the other rights set forth herein, in each case, reasonably satisfactory to the Required Holders; provided, however, that the Facility Agreement and any notes issued thereunder shall not be required as Assumption Agreements in the event the Company has prepaid all outstanding indebtedness (and all accrued interest) owed under the Facility Agreement. The provisions of this Section shall apply similarly and equally to successive Major Transactions and shall be applied without regard to any limitations on the exercise of this Warrant including any applicable ownership limitations. The Company shall not effect a Major Transaction that is being treated as an Assumption unless the Successor Warrant and other Assumption Agreements are issued and delivered to the Holder in accordance with the provisions hereof concurrently with the consummation of such Major Transaction and such issuance and delivery shall be an express written condition precedent to consummation of such Major Transaction.

(iii) Notice; Major Transaction Early Termination Right. At least twenty (20) days prior to the consummation or occurrence of any Major Transaction, but, in any event, within five (5) Business Days following the first to occur of (x) the date of the public announcement of such Major Transaction if such announcement is made before 4:00 p.m., New York City time, (y) the day following the public announcement of such Major Transaction if such announcement is made on and after 4:00 p.m., New York City time, or (z) the date of execution of the definitive agreement with respect to a Major Transaction, if such agreement is executed prior to an IPO Event, the Company shall deliver written notice thereof via facsimile and overnight courier to the Holder (a "Major Transaction Notice"). At any time during the period beginning after the Holder's receipt of a Major Transaction Notice and ending five (5) Trading Days prior to the consummation of a Major Transaction (or portion thereof) described in Section 5(c)(i) (the "Early Termination Period"), the Holder may require the Company to redeem (an "Early Termination Upon Major Transaction") all or any portion of this Warrant (without regard to any ownership limitations hereunder) by delivering written notice thereof (a "Major Transaction Early Termination Notice") to the Company, which Major Transaction Early Termination Notice shall indicate the portion of the principal amount (the "Early Termination Principal Amount") of the Warrant (by reference to the number of shares issuable upon a Cash Exercise of the Principal Amount) that the Holder is electing to have redeemed. The portion of this Warrant subject to redemption pursuant to this Section 5(c)(iii) (the "Redeemable Shares"), shall be redeemed by the Company at a price (the "Major Transaction Warrant Early Termination Price") payable in cash equal to the "Black-Scholes Value" of the Early Termination Principal Amount determined by use of the Black-Scholes Option Pricing Model using the criteria set forth in Schedule 1 hereto (the "Black-Scholes Value").

(iv) Escrow; Payment of Major Transaction Warrant Early Termination Price. The Company shall not effect a Major Transaction that is being treated as an early termination unless it (1) either (a) shall first place into an escrow account with an independent escrow agent, at least three (3) Business Days prior to the closing date of the Major Transaction (the "Major Transaction Escrow Deadline"), an amount of cash equal to the Major Transaction Warrant Early Termination Price or (b) obtains the written agreement of the Successor Entity that the payment of the Major Transaction Warrant Early Termination Price shall be made to the Holder concurrently with the consummation of such Major Transaction and such issuance or payment shall be a condition precedent to consummation of such Major Transaction; (2) in the case of a Major Transaction (or applicable portion) that is being treated as an Assumption, shall first cause the Successor Entity to issue and deliver the Successor Warrant and any applicable Assumption Agreements to the Holder in accordance with subsection (ii) above, and (3) in the event of a Major Transaction prior to an IPO Event with a Private Successor Entity that is not a Cash-Out Major Transaction and that is being treated as a redemption hereunder, causes the Successor Entity to provide the Holder with appropriate and reasonable access to information (subject to execution by the Holder of a non-disclosure agreement in customary and reasonable form) to determine the fair market value of its shares as per Schedule 1 hereto and to submit any dispute with the Holder as to such determination to a dispute resolution similar to that provided in Section 3(b) hereof. The Company shall, concurrently upon closing of such Major Transaction, pay or instruct the escrow agent to pay the Major Transaction Warrant Early Termination Price to the Holder.

(v) Injunction. In the event that the Company attempts to consummate a Major Transaction without (1) either (a) placing the Major Transaction Warrant Early Termination Price in escrow in accordance with subsection (iii) above, as applicable, (b) paying the Major Transaction Warrant Early Termination Price to the Holder prior to consummation of such Major Transaction, or (c) obtaining the written agreement of the Successor Entity described in subsection (iii) above; (2) in the case of a Major Transaction (or applicable portion) that is being treated as an Assumption, causing the Successor Entity to issue and deliver the Successor Warrant and any applicable Assumption Agreements to the Holder and (3) in the case of a Major Transaction with a Private Successor Entity that is not a Cash-Out Major Transaction and that is being treated as a redemption, causing the Successor Entity to take the actions described in subsection (iii) above, the Holder shall have the right to apply for an injunction in any state or federal courts sitting in the City of New York, borough of Manhattan to prevent the closing of such Major Transaction until such applicable required action is completed, in full.

An early termination required by this Section 5(c) shall have priority to payments to holders of capital stock in connection with a Major Transaction and to the extent an early termination required by this Section 5(c)(iii) are deemed or determined by a court of competent jurisdiction to be prepayments of the Warrant by the Company, such early termination shall be deemed to be voluntary prepayments. Notwithstanding anything to the contrary in this Section 5, until the Major Transaction Early Termination Price is paid in full, this Warrant may be exercised, in whole or in part, by the Holder into Shares, or in the event the Exercise Date is after the consummation of the Major Transaction, shares of publicly traded common stock (or their equivalent) of the Successor Entity pursuant to Section 5(c). The parties hereto agree that in the event of the Company's early termination of any portion of the Warrant under this Section 5(c), the Holder's damages would be uncertain and difficult to estimate because of the parties' inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for the Holder. Accordingly, any premium due under this Section 5(c) is intended by the parties to be, and shall be deemed, a reasonable estimate of the Holder's actual loss of its investment opportunity and not as a penalty.

For purposes hereof:

"Applicable Value" means (i) at any time that the Company is subject to the reporting requirements under the Exchange Act, (A) the product of (x) the number of issued and outstanding shares of Common Stock on the date the Company delivers the Major Transaction Notice multiplied by (y) the per share closing price of the Common Stock on such date plus (B) the amount of the Company's debt as shown on the latest financial statements filed with the SEC (the "Current Financial Statements") plus (C) the aggregate liquidation preference of each class of the Company's preferred stock less (D) the amount of cash and cash equivalents of the Company as shown on the Current Financial Statements; and (ii) at any time that the Company is not subject to the reporting requirements under the Exchange Act, the book value of the Company's assets as shown on the most recent financial statements of the Company.

“Cash-Out Major Transaction” means a Major Transaction in which the consideration payable to holders of capital stock in connection with the Major Transaction (whether paid directly or in liquidation of the Company or as a distribution following such Major Transaction) consists solely of cash.

“Eligible Market” means the New York Stock Exchange, Inc., the NYSE Arca, the NASDAQ Capital Market, the NASDAQ Global Market, the NASDAQ Global Select Market or the NYSE Alternext U.S.

“IPO Event” means the date on which shares of the Company become registered under the Securities Act of 1933, as amended.

“Mixed Major Transaction” means a Major Transaction in which the consideration payable to the shareholders of the Company consists partially of cash and partially of securities of a Successor Entity.

“Parent Entity” of a Person means an entity that, directly or indirectly, controls the applicable Person and whose common stock or equivalent equity security is quoted or listed on an Eligible Market, or, if there is more than one such Person or Parent Entity, the Person or Parent Entity with the largest public market capitalization as of the date of consummation of a Major Transaction.

“Person” means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

“Private Successor Entity” means a Successor Entity that is not a Publicly Traded Successor Entity.

“Publicly Traded Successor Entity” means a Successor Entity that is a publicly traded corporation whose common stock is quoted on or listed for trading on an Eligible Market (as defined above).

“Qualified IPO” means the closing of the sale of shares of the Common Stock to the public at a price of at least $1.25 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act, with at least $25,000,000 of gross proceeds to the Company and a listing of the Common Stock on the Nasdaq Stock Market or the New York Stock Exchange.

“Successor Entity” means any Person purchasing the Company’s assets or capital stock, or any successor entity resulting from such Major Transaction, or if the Warrant is to be exercisable for shares of capital stock of its Parent Entity (as defined above), its Parent Entity.

(d) Exercise Price Adjusted. As used in this Warrant, the term “Exercise Price” shall mean the purchase price per share specified in Section 3(a) of this Warrant, until the occurrence of an event stated in this Section 5 or otherwise set forth in this Warrant, and thereafter shall mean said price as appropriately adjusted from time to time in accordance with the provisions of said subsection. No adjustment made pursuant to any provision of this Section 5 shall have the net effect of increasing the aggregate Exercise Price in relation to the split adjusted and distribution adjusted price of the Shares.

(e) Adjustments: Additional Shares, Securities or Assets. In the event that at any time, as a result of an adjustment made pursuant to this Section 5 or otherwise, Holder shall, upon Exercise of this Warrant, become entitled to receive shares and/or other securities or assets (other than Shares) then, wherever appropriate, all references herein to Shares shall be deemed to refer to and include such shares and/or other securities or assets; and thereafter the number of such shares and/or other securities or assets shall be subject to adjustment from time to time in a manner and upon terms as nearly equivalent as practicable to the provisions of this Section 5.

(f) Adjustment of Exercise Price upon Issuance of Common Stock, Options, Convertible Securities, Etc.

(i) If at any time after the Mandatory Conversion Time for so long as this Warrant is outstanding, the Company (x) issues or sells any Common Stock, Convertible Securities, warrants, or Options or (y) directly or indirectly effectively reduces the conversion, exercise or exchange price for any Convertible Securities or Options which are currently outstanding, at or to an effective Per Share Selling Price (as defined below) which is less than the greater of (I) the closing sale price per share of the Common Stock on the principal securities exchange, trading market or quotation system on which shares of Common Stock are then traded, listed or quoted on the Trading Day immediately preceding such issue or sale ("Fair Market Price"), or (II) the Exercise Price, then in each such case the Exercise Price in effect immediately prior to such issue or sale date, as applicable, shall be automatically reduced effective concurrently with such issue or sale to an amount determined by multiplying the Exercise Price then in effect by a fraction, (x) the numerator of which shall be the sum of (1) the number of shares of Common Stock outstanding immediately prior to such issue or sale, plus (2) the number of shares of Common Stock which the aggregate consideration received by the Company for such additional shares would purchase at such Fair Market Price or Exercise Price, as the case may be, and (y) the denominator of which shall be the number of shares of Common Stock of the Company outstanding immediately after such issue or sale. The foregoing provision shall not apply to any issuances or sales of Common Stock or Convertible Securities (i) pursuant to any Convertible Securities or Options currently outstanding on the date hereof in accordance with the terms of such Convertible Securities in effect on the date hereof provided that such securities have not been amended since the date hereof to directly or indirectly effectively reduce the conversion, exercise or exchange price for any Convertible Securities or Options which are currently outstanding, or (ii) any Common Stock issued or issuable upon exercise of any options to employees, officers, directors, consultants and advisors (and any individuals who have accepted an offer of employment), in each case in connection with any Approved Stock Plan (as defined below).

For the purposes of the foregoing adjustments, in the case of the issuance of any Convertible Securities or Options, the maximum number of shares of Common Stock issuable upon exercise, exchange or conversion of such Convertible Securities or Options shall be deemed to be outstanding, provided that no further adjustment shall be made upon the actual issuance of Common Stock upon exercise, exchange or conversion of such Convertible Securities or Options, and provided further that to the extent such Convertible Securities or Options expire or terminate unconverted or unexercised, then at such time the Exercise Price shall be readjusted as if such portion of such Convertible Securities or Options had not been issued.

For purposes of this Section 5(f), if an event occurs that triggers more than one of the above adjustment provisions, then only one adjustment shall be made and the calculation method which yields the greatest downward adjustment in the Exercise Price shall be used.

(ii) *Record Date*. If the Company takes a record of the holders of Shares for the purpose of entitling them (1) to receive a dividend or other distribution payable in shares of Common Stock, Options or in Convertible Securities or (2) to subscribe for or purchase shares of Common Stock, Options or Convertible Securities, then such record date will be deemed to be the date of the issue or sale of the Shares deemed to have been issued or sold upon the declaration of such dividend or the making of such other distribution or the date of the granting of such right of subscription or purchase, as the case may be.

(iii) *Certain Definitions*. For purposes of this Section 5(f), the following terms have the respective meanings set forth below:

"Approved Stock Plan" means any employee benefit plan which has been duly adopted by a majority of the non-employee members of the Board of Directors of the Company or a majority of the members of a committee of non-employee directors established for such purpose, pursuant to which the Company's securities may be issued to any employee, consultant, advisor, officer or director (or any individual who has accepted an offer of employment) for services provided to the Company, and in all cases, providing for an Exercise Price that is at or above the fair market value (as defined in such Approved Stock Plan).

"Convertible Securities" means any stock or securities (other than Options) directly or indirectly convertible into or exchangeable or exercisable for shares of Common Stock.

"Options" means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

"Per Share Selling Price" shall include the amount actually paid by third parties for each share of Common Stock in a sale or issuance by the Company. In the event a fee is paid by the Company in connection with such transaction directly or indirectly to such third party or its affiliates, any such fee shall be deducted from the selling price pro rata to all shares sold in the transaction to arrive at the Per Share Selling Price. A sale of shares of Common Stock shall include the sale or issuance of Convertible Securities or Options, and in such circumstances the Per Share Selling Price of the Common Stock covered thereby shall also include the exercise, exchange or conversion price thereof (in addition to the consideration received by the Company upon such sale or issuance less the fee amount as provided above). In case of any such security issued in a transaction in which the purchase price or the conversion, exchange or exercise price is directly or indirectly subject to adjustment or reset based on a future date, future trading prices of the Common Stock, specified or contingent events directly or indirectly related to the business of the Company or the market for the Common Stock, or otherwise (but excluding standard stock split anti-dilution provisions or weighted-average anti-dilution provisions similar to that set forth herein, provided that any actual reduction of such price under any such security pursuant to such weighted-average anti-dilution provision shall be included and cause an adjustment hereunder), the Per Share Selling Price shall be deemed to be the lowest conversion, exchange, exercise or reset price at which such securities are converted, exchanged, exercised or reset or might have been converted, exchanged, exercised or reset, or the lowest adjustment, as the case may be, over the life of such securities. If shares are issued for a consideration other than cash, the Per Share Selling Price shall be the fair value of such consideration as determined in good faith by independent certified public accountants mutually acceptable to the Company and the Holder. In the event the Company directly or indirectly effectively reduces the conversion, exercise or exchange price for any Convertible Securities or Options which are currently outstanding, then the Per Share Selling Price shall equal such effectively reduced conversion, exercise or exchange price.

(g) Notice of Adjustments. Whenever the Exercise Price is adjusted pursuant to the terms of this Warrant, the Company shall promptly mail to the Holder a notice (an "Exercise Price Adjustment Notice") setting forth the Exercise Price after such adjustment and setting forth a statement of the facts requiring such adjustment. The Company shall, upon the written request at any time of the Holder, furnish to such Holder a like Warrant setting forth (i) such adjustment or readjustment, (ii) the Exercise Price at the time in effect and (iii) the number of Shares and the amount, if any, of other securities or property which at the time would be received upon Exercise of the Warrant. For purposes of clarification, whether or not the Company provides an Exercise Price Adjustment Notice pursuant to this Section 5(f), upon the occurrence of any event that leads to an adjustment of the Exercise Price, the Holder would be entitled to receive a number of Exercise Shares based upon the new Exercise Price, as adjusted, for exercises occurring on or after the date of such adjustment, regardless of whether the Holder accurately refers to the adjusted Exercise Price in the Exercise Form.

(h) Failure of Qualified Public Offering to Occur. In the event that no Qualified Public Offering has occurred prior to the date that is thirty (30) days prior to the expiration of the Term, the Holder shall have the right, by prior written notice delivered via electronic mail, facsimile, regular mail or overnight delivery to the Company at least five (5) days prior to the expiration of the Term (the "Term Redemption Notice") to require the Company to redeem this Warrant, on or prior to the date of the expiration of the Term, for an amount in cash equal to the excess, if any, of (x) the Underlying Share Fair Market Value, over the (y) the aggregate Exercise Price of all Shares underlying this Warrant at such time. For purposes hereof, "Underlying Share Fair Market Value" means the Fair Market Value of the remaining Shares issuable upon a Cash Exercise of this Warrant as of the date of the Term Redemption Notice. Within five (5) Business Days of receipt of a Term Redemption Notice, the Company shall submit its calculation of "Underlying Share Fair Market Value" and supporting documentation, to the Holder. Any dispute shall be handled in accordance with the dispute resolution mechanism set forth in Section 3(b). Notwithstanding anything herein to the contrary, the provisions of this Section 5(g) shall survive the expiration of the Term of this Warrant.

(i) Adjustments for Diluting Issuances. The number of shares of Common Stock (or the number and type of other securities, as applicable) issuable upon conversion of the shares of Series D Preferred Stock for which this Warrant is exercisable, are subject to adjustment, from time to time, in the manner set forth in the Charter as if the shares of Series D Preferred Stock for which this Warrant is exercisable were issued and outstanding on and as of the date of any such required adjustment. The provisions set forth in the Charter relating to adjustments to the Common Stock (or the number and type of other securities) into which shares of Series D Preferred Stock are convertible in effect as of the date hereof may not be amended, modified or waived, without the prior written consent of the Required Holders unless such amendment, modification or waiver affects the rights associated with all shares of Series D Preferred Stock in the same manner. Nothing in this subsection (h) shall in any way derogate from any other rights of the Holder set forth herein.

6. Fractional Interests.

No fractional shares or scrip representing fractional shares shall be issuable upon the Exercise of this Warrant, but on Exercise of this Warrant, Holder may purchase only a whole number of Shares. If, on Exercise of this Warrant, Holder would be entitled to a fractional Share or a right to acquire a fractional Share, such fractional share shall be disregarded and the number of Shares issuable upon Exercise shall be the next higher whole number of shares.

7. Authorized Share Capital.

From and after the date hereof, the Company shall procure (including by obtaining all corporate authorizations for issuance of warrants and the underlying securities, the exclusion of pre-emptive rights as well as waivers of any transfer restrictions) that, at all times, its authorized share capital shall be sufficient for the Exercise of this Warrant and payment of the Exercise Price and for the conversion of all Shares issuable hereunder and payment of the exercise price applicable to such Shares. If at any time the amount of the authorized share capital of the Company is below the number of shares sufficient for the Exercise of this Warrant or the conversion of the Shares issuable hereunder (a "Share Authorization Failure") (based on the Exercise Price or conversion price, as the case may be, in effect from time to time), the Company will promptly take all corporate action necessary to increase the authorized share capital of the Company, including, without limitation, calling a special meeting of shareholders and/or any other relevant corporate body to amend the Charter increasing the authorized share capital of the sufficiently high to meet the Company's obligations under this Section 7. The Company covenants and agrees that upon the Exercise of this Warrant, all Shares issuable upon such Exercise shall be duly and validly issued, fully paid and nonassessable and not subject to preemptive rights, rights of first refusal or similar rights of any Person.

8. Restrictions on Transfer.

(a) Registration or Exemption Required. This Warrant has been issued in a transaction exempt from the registration requirements of the Securities Act by virtue of Regulation D and exempt from state registration or qualification under applicable state laws. None of the Warrant or the Exercise Shares may be pledged, transferred, sold or assigned except pursuant to an effective registration statement or an exemption from the registration requirements of the Securities Act and applicable state laws including, without limitation, a so-called "4(a)(1) and a half" transaction.

(b) Assignment. Subject to Section 8(a), the Holder may sell, transfer, assign, pledge, or otherwise dispose of this Warrant (a "Transfer"), in whole or in part. Holder shall deliver a written notice to Company, substantially in the form of the Assignment attached hereto as Exhibit B, indicating the Person or Persons to whom the Warrant shall be assigned and the respective number of warrants to be Transferred to each transferee. The Company shall effect the Transfer within three (3) Business Days of the satisfaction by a transferring Holder of all requirements of this Warrant for Transfer (the "Transfer Delivery Period"), and shall deliver to the assignee(s) designated by Holder a Warrant or Warrants of like tenor and terms for the appropriate number of shares. This Warrant and the rights evidenced hereby shall inure to the benefit of and be binding upon the successors and assigns of the Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant, and shall be enforceable by any such Holder. For avoidance of doubt, following an IPO Event, in the event Holder notifies the Company that such sale or transfer is a so called "4(a)(1) and half" transaction, the parties hereto agree that a legal opinion from outside counsel for the Holder delivered to counsel for the Company substantially in the form attached hereto as Exhibit C that may be relied upon by the Company shall be the only requirement to satisfy an exemption from registration under the Securities Act to effectuate such "4(a)(1) and half" transaction. Notwithstanding the foregoing, any Transfer of this Warrant, in whole or in part while the terms of any such Investor Agreement are applicable to the Holder in its capacity as holder of this Warrant, shall be subject to as a condition of such Transfer the transferee entering into and becoming party, to the same extent as the transferring Holder in its capacity as holder of this Warrant, to (i) the Investor Rights Agreement, (ii) the ROFR Agreement, and (iii) the Voting Agreement, as applicable.

9. Noncircumvention.

The Company hereby covenants and agrees that the Company will not, by amendment of its Charter, bylaws, shareholders agreement or through any reorganization, transfer of assets, consolidation, merger, demerger, scheme of arrangement, dissolution, issue or sale of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, and will at all times exercise best efforts and good faith to carry out all the provisions of this Warrant and take all action as may be reasonably required to protect the rights of the Holder. Without limiting the generality of the foregoing, the Company (i) shall not increase the par value or the rights or terms of any Shares or of the Common Stock without the prior consent of the Holder, and (ii) shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Shares upon the exercise of this Warrant.

10. Events of Failure; Definition of Black-Scholes Value.

(a) Definition.

The occurrence of each of the following shall be considered to be an "Event of Failure."

(i) a Delivery Failure occurs, where a "Delivery Failure" shall be deemed to have occurred if the Company fails to issue and deliver Exercise Shares to the Holder within any applicable Delivery Period;

(ii) a Legend Removal Failure occurs, where a "Legend Removal Failure" shall be deemed to have occurred if the Company fails to issue Exercise Shares without a restrictive legend pursuant to the requirements of Section 2, or fails to remove a restrictive legend pursuant to the requirements of Section 2 or fails to remove any IRA Legend at a time when such legend is not required pursuant to the Investor Agreements;

(iii) a Transfer Delivery Failure occurs, where a "Transfer Delivery Failure" shall be deemed to have occurred if the Company fails to deliver a Warrant pursuant to Sections 4 and 8 within any applicable Transfer Delivery Period; or

(iv) a "Registration Failure" occurs.

For purposes hereof, a "Registration Failure" shall have occurred if the Company shall have failed to comply with its obligations to the Holder under Section 2 of the Investor Rights Agreement.

(b) Failure Payments; Black-Scholes Determination. The Company understands that any Event of Failure (as defined above) could result in economic loss to the Holder. In the event that any Event of Failure occurs, as compensation to the Holder for such loss, the Company agrees (as liquidated damages and not as a penalty) to pay on a daily basis to the Holder an amount payable in cash ("Failure Payments") equal to the amount resulting from the quotient of (A) the amount resulting from the product of (i) eighteen percent (18%) per annum (or the maximum rate permitted by applicable law, whichever is less), multiplied by (ii) the Black-Scholes value (as determined below) of the remaining unexercised portion of this Warrant (without regard to any ownership limitations hereunder) on the date of such Event of Failure (as recalculated on the first Business Day of each month thereafter for as long as Failure Payments shall continue to accrue), where the result of such product is divided by (B) 365, and such amount shall accrue daily from the date of such Event of Failure until the Event of Failure is cured. For purposes of clarification, it is agreed and understood that Failure Payments shall continue to accrue following any Event of Default until the applicable Default Amount is paid in full.

The Company shall satisfy any Failure Payments under this Section pursuant to Section 10(c) below. Failure Payments are in addition to any Warrant Shares that the Holder is entitled to receive upon Exercise of this Warrant.

For purposes hereof, the "Black-Scholes" value of a Warrant shall be determined by use of the Black-Scholes Option Pricing Model using the criteria set forth on Schedule 1 hereto.

(c) Payment of Accrued Failure Payments. The Failure Payment for each Event of Failure shall be paid on or before the fifth (5th) Business Day of each month following a month in which Failure Payments accrued. Nothing herein shall limit the Holder's right to pursue actual damages (to the extent in excess of the Failure Payments) for the Company's Event of Failure, and the Holder shall have the right to pursue all remedies available at law or in equity (including a decree of specific performance and/or injunctive relief). If a particular Event of Failure results in an Event of Default pursuant to Section 11 hereof, then the Failure Payment, for that Event of Failure only, shall be considered to have been satisfied upon payment to the Holder of an amount equal to the greater of (i) the Failure Payment, or (ii) the Default Amount, payable in accordance with Section 11.

(d) Maximum Interest Rate. Nothing contained herein or in any document referred to herein or delivered in connection herewith shall be deemed to establish or require the payment of a rate of interest or other charges in excess of the maximum permitted by applicable law. In the event that the rate of interest or dividends required to be paid or other charges hereunder exceed the maximum permitted by such law, any payments in excess of such maximum shall be credited against amounts owed by the Company to the Holder and thus refunded to the Company.

11. Default.

(a) Events Of Default. Each of the following events shall be considered to be an "Event of Default" unless waived by the Holder:

(i) Failure To Deliver Shares. A Delivery Failure (as defined above) occurs and remains uncured for a period of more than twenty (20) days or at any time, the Company announces or states in writing that it will not honor its obligations to issue Shares to the Holder upon Exercise by the Holder of the Exercise rights of the Holder in accordance with the terms of this Warrant;

(ii) Legend Removal Failure. A Legend Removal Failure (as defined above) occurs and remains uncured for a period of twenty (20) days;

(iii) Transfer Delivery Failure. Transfer Delivery Failure (as defined above) occurs and remains uncured for a period of twenty (20) days;

(iv) Corporate Existence; Major Transaction. (A) The Company has failed to obtain the written agreement of the Successor Entity, or to cause the Successor Entity to take the actions required, pursuant to Section 5(c)(iv) or (B) with respect to a Major Transaction that is to be treated as an Assumption under the terms hereof, the Company has failed to meet the Assumption requirements of
Section 5(c)(ii); and

(v) Failure to Effect Registration. With respect to all Registration Failures, a Registration Failure occurs and remains uncured for a period of more than thirty (30) days.

(b) Mandatory Early Termination.

(i) Mandatory Early Termination Amount. If any Events of Default shall occur then, unless waived by the Holder, upon the occurrence and during the continuation of any Event of Default, at the option of the Holder, such option exercisable through the delivery of written notice to the Company by such Holder (the "Default Notice"), the Company shall be obligated to terminate the outstanding amount of this Warrant and pay to the Holder (a "Mandatory Early Termination"), in full satisfaction of its obligations hereunder by delivery of a notice to such effect to the Holder within two (2) Business Days following receipt of the Default Notice, an amount payable in cash (the "Default Amount") equal to the greater of (1) the Black-Scholes value (as determined in accordance with Section 10(b)) of the remaining unexercised portion of this Warrant (without regard to any ownership limitations hereunder) on the date of such Default Notice and (2) the Black-Scholes value (also as determined in accordance with Section 10(b)) of the remaining unexercised portion of this Warrant (without regard to any ownership limitations hereunder) on the Trading Day immediately preceding the date that the Mandatory Early Termination Amount is paid to the Holder.

The Mandatory Early Termination Amount shall be payable within five (5) Business Days following the date of the applicable Default Notice.

(ii) Liquidated Damages. The parties hereto acknowledge and agree that the sums payable as Failure Payments or pursuant to a Mandatory Early Termination shall give rise to liquidated damages and not penalties. The parties further acknowledge that (i) the amount of loss or damages likely to be incurred by the Holder is incapable or is difficult to precisely estimate, (ii) the amounts specified bear a reasonable proportion and are not plainly or grossly

disproportionate to the probable loss likely to be incurred by the Holder, and (iii) the parties are sophisticated business parties and have been represented by sophisticated and able legal and financial counsel and negotiated this Agreement at arm's length.

The Default Amount, together with all other amounts payable hereunder, shall immediately become due and payable, all without demand, presentment or notice, all of which hereby are expressly waived, together with all costs, including, without limitation, legal fees and expenses, of collection, and the Holder shall be entitled to exercise all other rights and remedies available at law or in equity.

(c) Posting Of Bond. In the event that any Event of Default occurs hereunder, the Company may not raise as a legal defense (in any Lawsuit, as defined below, or otherwise) or justification to such Event of Default any claim that such Holder or anyone associated or affiliated with such Holder has been engaged in any violation of law, unless the Company has posted a surety bond (a "Surety Bond") for the benefit of such Holder in the amount of 130% of the aggregate Surety Bond Value (as defined below) of all of the Holder's Warrants (the "Bond Amount"), which Surety Bond shall remain in effect until the completion of litigation of the dispute and the proceeds of which shall be payable to such Holder to the extent Holder obtains judgment.

For purposes hereof, a "Lawsuit" shall mean any lawsuit, arbitration or other dispute resolution filed by either party herein pertaining to any of this Warrant, the Facility Agreement and the Registration Rights Agreement.

"Surety Bond Value," for the Warrants shall mean 130% of the of the Black-Scholes value of the remaining unexercised portion of this Warrant on the Trading Day immediately preceding the date that such bond goes into effect).

(d) Injunction And Posting Of Bond. In the event that the Event of Default referred to in subsection (c) above pertains to the Company's failure to deliver unlegended shares of Common Stock to the Holder pursuant to a Warrant Exercise, legend removal request, or otherwise, the Company may not refuse such unlegended share delivery based on any claim that such Holder or anyone associated or affiliated with such Holder has been engaged in any violation of law, unless an injunction from a court, on prior notice to Holder, restraining and or enjoining Exercise of all or part of said Warrant shall have been sought and obtained by the Company and the Company has posted a Surety Bond for the benefit of such Holder in the amount of the Bond Amount, which Surety Bond shall remain in effect until the completion of litigation of the dispute and the proceeds of which shall be payable to such Holder to the extent Holder obtains judgment.

(e) Remedies, Other Obligations, Breaches And Injunctive Relief. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant and the Facility Agreement, at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the right of the Holder to pursue actual damages for any failure by the Company to comply with the terms of this Warrant. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the holder of this Warrant shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

11. Holder's Early Terminations.

In the event that the Company does not deliver the Major Transaction Warrant Early Termination Price or the Default Amount, as the case may be, to the Holder within the time period or as otherwise required pursuant to the terms hereof, at any time thereafter the Holder shall have the option, upon notice to the Company, in lieu of early termination, to require the Company to promptly return to the Holder all or any portion of this Warrant that was submitted for early termination or exercise. Upon the Company's receipt of such notice, (x) the applicable early termination or exercise, as the case may be, shall be null and void with respect to such applicable portion of this Warrant and (y) the Company shall immediately return this Warrant, or issue a new Warrant to the Holder representing the portion of this Warrant that was submitted for early termination or exercise. The Holder's delivery of a notice voiding an early termination or exercise and exercise of its rights following such notice shall not affect the Company's obligations to make any payments of Failure Payments which have accrued prior to the date of such notice with respect to the Warrant subject to such notice.

12. Benefits of this Warrant.

Nothing in this Warrant shall be construed to confer upon any person other than the Company and Holder any legal or equitable right, remedy or claim under this Warrant and this Warrant shall be for the sole and exclusive benefit of the Company and Holder.

13. Governing Law.

All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the laws of the State of New York applicable to contracts made and to be performed in such State. All legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party or its respective affiliates, directors, officers, shareholders, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. The parties hereby waive all rights to a trial by jury.

14. Loss of Warrant.

Upon receipt by the Company of evidence of the loss, theft, destruction or mutilation of this Warrant, and (in the case of loss, theft or destruction) of indemnity or security or an affidavit of loss, theft or destruction, reasonably satisfactory to the Company, and upon surrender and cancellation of this Warrant, if mutilated, the Company shall execute and deliver a new Warrant of like tenor and date.

15. Notice or Demands.

Notices or demands pursuant to this Warrant to be given or made by Holder to or on the Company shall be sufficiently given or made if sent by mail, electronic mail or facsimile per the addresses or numbers, as the case may be, set forth in Section 2 hereof, until another address or number is designated in writing by the Company. Notices or demands pursuant to this Warrant to be given or made by the Company to or on Holder shall be sufficiently given or made if sent by certified or registered mail, return receipt requested, postage prepaid, and addressed, to the address of Holder set forth in the Company's records, until another address is designated in writing by Holder.

16. Amendment; Waiver.

The terms and provisions of this Warrant shall not be amended or waived except in a writing signed by the Company and the Holder, provided that the Company and the Required Holders may in writing amend the Warrants on behalf of all of the holders of Warrants.

IN WITNESS WHEREOF, the undersigned has executed this Warrant as of the day of , 20 .

KEMPHARM, INC.

By: _____
Name:
Title:

EXHIBIT A

EXERCISE FORM FOR WARRANT

TO: [ ]

CHECK THE APPLICABLE BOX:

☐ ***Cash Exercise or Cashless Exercise***

The undersigned hereby irrevocably exercises the attached warrant (the "Warrant") with respect to Shares of Kempharm, Inc., a Delaware corporation (the "Company"), and, if pursuant to a Cashless Exercise, herewith makes payment of the Exercise Price with respect to such shares in full, all in accordance with the conditions and provisions of said Warrant.

☐ [IF APPLICABLE: The undersigned hereby encloses $____ as payment of the Exercise Price.]

☐ [IF APPLICABLE: The undersigned hereby agrees to cancel $____ of principal outstanding under Notes of the Company held by the Holder.]

1. The undersigned requests that any stock certificates for such shares be issued free of any restrictive legend, if appropriate, and, if requested by the undersigned, a warrant representing any unexercised portion hereof be issued, pursuant to the Warrant in the name of the undersigned and delivered to the undersigned at the address set forth below.

2. Capitalized terms used but not otherwise defined in this Exercise Form shall have the meaning ascribed thereto in the Warrant.

Dated: _____

Signature

Print Name

Address

NOTICE

The signature to the foregoing Exercise Form must correspond to the name as written upon the face of the attached Warrant in every particular, without alteration or enlargement or any change whatsoever.

EXHIBIT B

ASSIGNMENT

(To be executed by the registered holder
desiring to transfer the Warrant)

FOR VALUE RECEIVED, the undersigned holder of the attached warrant (the "Warrant") hereby sells, assigns and transfers unto the person or persons below named the right to purchase _____ Shares (as defined in the Warrant) of Kempharm, Inc., a Delaware corporation, evidenced by the attached Warrant and does hereby irrevocably constitute and appoint _____ attorney to transfer the said Warrant on the books of the Company, with full power of substitution in the premises.

Dated: _____

_____
Signature

Fill in for new registration of Warrant:

_____
Name

_____
Address

_____
Please print name and address of assignee
(including zip code number)

NOTICE

The signature to the foregoing Assignment must correspond to the name as written upon the face of the attached Warrant in every particular, without alteration or enlargement or any change whatsoever.

EXHIBIT C

FORM OF OPINION

_____, 20__

[_____]

Re: [_____] (the "Company")

Dear Sir:

[_____] ("[_____]") intends to transfer _____ Warrants (the "Warrants") of the Company to _____("_____") without registration under the Securities Act of 1933, as amended (the "Securities Act"). In connection therewith, we have examined and relied upon the truth of representations contained in an Investor Representation Letter attached hereto and have examined such other documents and issues of law as we have deemed relevant.

Based on and subject to the foregoing, we are of the opinion that the transfer of the Warrants by _____ to _____ may be effected without registration under the Securities Act, provided, however, that the Warrants to be transferred to _____ contain a legend restricting its transferability pursuant to the Securities Act and that transfer of the Warrants is subject to a stop order.

The foregoing opinion is furnished only to _____ and may not be used, circulated, quoted or otherwise referred to or relied upon by you for any purposes other than the purpose for which furnished or by any other person for any purpose, without our prior written consent.

Very truly yours,

Schedule 1

Black-Scholes Value

	Calculation Under Section 5(c)(iii)	Calculation Under Section 10(b) or 11(b)
Number of Shares	The number of Warrant Shares subject to such redemption.	The number of Warrant Shares subject to such redemption.
Remaining Term	If the Major Transaction is consummated prior to the IPO Event, the number of days from the earlier of (i) the date of execution of a definitive agreement with respect to such Major Transaction and (ii) the date of the Major Transaction Notice, until the last date on which the Warrant may be Exercised; if the Major Transaction is consummated after the IPO Event, the number of calendar days from the earlier of (x) date of public announcement of the Major Transaction and (y) the date of the Major Transaction Notice, until the last date on which the Warrant may be Exercised.	Number of calendar days from date of the Event of Failure until the last date on which the Warrant may be exercised.
Interest Rate	A risk-free interest rate corresponding to the US$ LIBOR/Swap rate for a period equal to the Remaining Term.	A risk-free interest rate corresponding to the US$ LIBOR/Swap rate for a period equal to the Remaining Term.
Cost to Borrow	Zero	Zero
Volatility	60%	60%
Stock Price	**Pre-IPO Event** (A) **Cash-Out Major Transaction; Cash Portion of Mixed Major Transaction** The greater of (i) the amount of cash payable or distributable per Applicable Share pursuant to the terms of the Charter in connection with such Major Transaction and (ii) the per share amount of cash consideration payable per Applicable Share in connection with such Major Transaction. “Applicable Share” means (1) following the Mandatory Conversion Time, a share of Common Stock and (2) prior to the Mandatory	The Volume Weighted Average Price of a shares of Common Stock on the date of such calculation (if following the Mandatory Conversion Time) and the Fair Market Value of an Applicable Share at the time of such calculation (if prior to the Mandatory Conversion Time).

Conversion Time, whichever of (x) and (y) would result in a greater calculation where (x) is a share of Series D Preferred Stock and (y) is a number of shares of Common Stock equal to the prevailing Per Share Underlying Common Amount.

"Mixed Major Transaction" means a Major Transaction in which the consideration payable to holders of Applicable Shares consists partially of cash and partially of securities of a Successor Entity (and potentially other non-cash property).

(B) **Non-Cash Major Transaction; Non-Cash Portion of Mixed Major Transaction**

The greater of (i) the Fair Market Value of the shares of such Successor Entity and the other property (other than cash) payable or distributable per Applicable Share pursuant to the terms of the Charter in connection with such Major Transaction and (ii) the sum of (A) the Fair Market Value of the property (excluding cash and shares of such Successor Entity) payable per Applicable Share in connection with such Major Transaction and (B) the number of shares of such Successor Entity issuable in such Major Transaction per Applicable Share multiplied by (x) in the case of publicly-traded shares of a Publicly Traded Successor Entity, the greater of (1) closing price per share of common stock of such Publicly Traded Successor Entity on the principal market on which such common stock is traded or listed (the "Successor Closing Market Price") as of the date immediately preceding the first public announcement of the Major Transaction, (2) the Successor Closing Market Price on the trading day immediately preceding the date on which a Major Transaction is consummated and (3) the first Successor Closing Market Price following the first public announcement of a Major Transaction or (y) in the case of shares of a non-publicly traded Successor Entity (or non-publicly -traded shares in a transaction with a publicly-traded Successor Entity), the Fair Market Value for each share of the Successor Entity issuable or distributable in such Major Transaction. In the event of a Major Transaction with a Private Successor Entity that is not a Cash-Out Major Transaction and that is being treated as a redemption hereunder, the Company shall cause the Successor Entity to provide the Holder with appropriate and reasonable access to information (subject to execution by the Holder

	of a non-disclosure agreement in customary and reasonable form) to determine the Fair Market Value of its shares as per this Schedule and to submit any dispute with the Holder as to such determination to a dispute resolution similar to that provided in Section 3(b) hereof. "Non-Cash Major Transaction" means a Major Transaction in which the consideration payable to holders of Applicable Shares in connection with such Major Transaction includes securities of a Successor Entity, but does not include cash. (C) **All Other Major Transactions (Pre-IPO Event)**. The Fair Market Value of a Warrant Share on the date of such calculation. **Post-IPO Event:** The greater of (1) the closing price of the Common Stock on NASDAQ, or, if that is not the principal trading market for the Common Stock, such principal market on which the Common Stock is traded or listed (the "Closing Market Price") on the trading day immediately preceding the date on which a Major Transaction is consummated, (2) the first Closing Market Price following the first public announcement of a Major Transaction, (3) the Closing Market Price as of the date immediately preceding the first public announcement of the Major Transaction or (4) the amount of any consideration payable per Applicable Share in such Major Transaction. In the event such calculation is made prior to the Mandatory Conversion Time and the Warrant is then Exercisable for shares of Series D Preferred Stock, such prices described in (1), (2) and (3) shall be multiplied by the Per Share Underlying Common Amount.	
Dividends	Zero.	Zero.
Strike Price	The Exercise Price (as defined in Section 3(a)).	The Exercise Price (as defined in Section 3(a)).

THIS NOTE MAY BE ISSUED WITH ORIGINAL ISSUE DISCOUNT ("OID") FOR U.S. FEDERAL INCOME TAX PURPOSES. THE AMOUNT OF OID SHALL BE MUTUALLY DETERMINED BY THE ORIGINAL HOLDER AND THE COMPANY IN GOOD FAITH AND IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTIONS 1271 THROUGH 1275 OF THE U.S. INTERNAL REVENUE CODE.

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE SOLD, TRANSFERRED OR ASSIGNED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER SAID ACT, OR PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER SAID ACT INCLUDING, WITHOUT LIMITATION, PURSUANT TO RULES 144 OR 144A UNDER SAID ACT OR PURSUANT TO A PRIVATE SALE EFFECTED UNDER APPLICABLE FORMAL OR INFORMAL SEC INTERPRETATION OR GUIDANCE, SUCH AS A SO-CALLED "4(1) AND A HALF" SALE.

SENIOR SECURED CONVERTIBLE NOTE

Issuance Date: June 2, 2014 Principal: U.S. $10,000,000

FOR VALUE RECEIVED, KEMPHARM, INC., a Delaware corporation (the "**Company**"), hereby promises to pay to Deerfield Private Design Fund III, L.P. or its registered assigns (the "**Holder**"), the principal amount of Ten Million Dollars ($10,000,000) pursuant to, and in accordance with, the terms of that certain Facility Agreement, dated as of June 2, 2014, by and among the Company and the Lenders party thereto (together with all exhibits and schedules thereto and as may be amended, restated, modified and supplemented from time to time, the "**Facility Agreement**"). The Company hereby promises to pay accrued and unpaid Interest (as defined below) and premium, if any, on the Principal on the dates, at the rates and in the manner provided for in the Facility Agreement. All capitalized terms used and not otherwise defined herein shall have the respective meanings set forth in the Facility Agreement.

Except as set forth herein, the Company has no right, but under certain circumstances may have an obligation, to make payments of Principal prior to the due date for such payments set forth in Section 2.3(b) of the Facility Agreement. At any time an Event of Default exists, the Principal of this Note, together with all accrued and unpaid Interest and any applicable premium due, if any, may be declared, or shall otherwise become, due and payable in the manner, at the price and with the effect provided in the Facility Agreement.

1. Definitions.

(a) Certain Defined Terms. For purposes of this Note, the following terms shall have the following meanings:

(i) "**Affiliate**" means any person or entity that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a person or entity, as such terms are used in and construed under Rule 144 under the Securities Act ("**Rule 144**"). With respect to a Holder, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as such Holder will be deemed to be an Affiliate of such Holder.

(ii) "**Applicable Value**" means (i) at any time that the Company is subject to the reporting requirements under the Exchange Act, (A) the product of (x) the number of issued and outstanding shares of Common Stock on the date the Company delivers the Major Transaction Notice (as defined in Section 3(b)) multiplied by (y) the per share closing price of the Common Stock on such date plus (B) the amount of the Company's debt as shown on the latest financial statements filed with the SEC (the "**Current Financial Statements**") plus (C) the aggregate liquidation preference of each class of the Company's preferred stock less (D) the amount of cash and cash equivalents of the Company as shown on the Current Financial Statements; and (ii) at any time that the Company is not subject to the reporting requirements under the Exchange Act, the book value of the Company's assets as shown on the most recent financial statements of the Company.

(iii) "**Bylaws**" means the Amended and Restated Bylaws of the Company, as amended from time to time.

(iv) "**Cash-Out Major Transaction**" means a Major Transaction in which the consideration payable to holders of capital stock in connection with the Major Transaction (whether paid directly or in liquidation of the Company following such Major Transaction) consists solely of cash (whether or not subject to escrows, holdbacks or other contingencies).

(v) "**Charter**" means the Company's certificate of incorporation, as it may be amended or restated from time to time.

(vi) "**Common Stock**" means the common stock, par value $0.001 per share, of the Company.

(vii) "**Conversion Amount**" means the sum of (A) the Principal to be converted, redeemed or otherwise exchanged with respect to which this determination is being made and (B) the amount of all accrued and unpaid Interest on the Principal to be converted, redeemed or otherwise exchanged with respect to which this determination is being made (the "**Interest Amount**").

(viii) "**Conversion Price**" means, as of any Conversion Date or other date of determination, $0.78 per Series D Preferred Share, subject to adjustment as provided herein; provided, however, that from and after the Mandatory Conversion Time, the "Conversion Price" shall equal the Conversion Price in effect immediately prior to such Mandatory Conversion Time divided by the number of shares of Common Stock that would have been issuable upon such Mandatory Conversion Time in respect of a share of Series D Preferred Shares, as applicable, subject to further adjustment as provided herein.

(ix) "**Dollars**" or "**$**" means United States Dollars.

(x) "**Eligible Market**" means the New York Stock Exchange, Inc., the NYSE Arca, the NASDAQ Capital Market, the NASDAQ Global Market, the NASDAQ Global Select Market or the NYSE Alternext U.S.

(xi) "**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

(xii) "**Fair Market Value**" means the fair market value as mutually determined by the Company and Required Note Holders, subject to the dispute resolution provisions set forth in Section 2(c)(iii) below.

(xiii) "**Initial Holder**" means Deerfield Private Design Fund III, L.P.

(xiv) "**Interest**" means any interest (including any default interest) accrued on the Principal pursuant to the terms of this Note and the Facility Agreement.

(xv) "**Investor Agreements**" means the Right of First Refusal and Co-Sale Agreement, the Investors' Rights Agreement (the "Investor Rights Agreement") and the Voting Agreement, in each case, dated as of June 2, 2014, by and among the Company, the Initial Holder and the stockholders party thereto, as amended or restated from time to time in accordance with the terms thereof.

(xvi) "**IPO Event**" means the date on which shares of the Common Stock become registered under the Securities Act.

(xvii) "**Issuance Date**" means June 2, 2014, regardless of any exchange or replacement hereof.

(xviii) "**Major Transaction**" means any of the following events:

(A) a consolidation, merger, exchange of shares, recapitalization, reorganization, business combination or other similar event, (1) following which the holders of shares of voting stock immediately preceding such consolidation, merger, exchange, recapitalization, reorganization, combination or event either (a) no longer hold a majority of the shares of voting stock of the Company or (b) no longer have the ability to elect a majority of the board of directors of the Company, or (2) as a result of which Shares or shares of the Company's voting stock shall be changed into (or the holders of Shares or shares of the Company's voting stock become entitled to receive) the same or a different number of shares of the same or another class or classes of stock or securities of another entity, other than such an event undertaken to adopt a holding company structure without otherwise changing the relative holdings of capital stock (any event following which or resulting in the conditions described in the foregoing clauses (1) or (2), collectively, a "**Change of Control Transaction**");

(B) the sale or transfer in one transaction or a series of related transactions of (i) all or substantially all of the assets of the Company to any Person or (ii) assets of the Company for a purchase price equal to more than 50% of the Applicable Value (as defined below);

(C) a third-party purchase, tender or exchange offer made to the holders of outstanding Conversion Shares or shares of any class(es) or series capital stock, such that following such purchase, tender or exchange offer a Change of Control Transaction shall have occurred;

(D) the liquidation, bankruptcy, insolvency, dissolution or winding-up (or the occurrence of any analogous proceeding) affecting the Company;

(E) after an IPO Event the shares of Common Stock cease to be listed on any Eligible Market on which they are then listed or quoted and are not promptly re-listed or requoted on an Eligible Market;

(F) at any time after an IPO Event, the shares of Common Stock cease to be registered under Section 12 of the Exchange Act; or

(G) an "Event of Liquidation" under the Company's Amended and Restated Certificate of Incorporation.

provided, however, that a Major Transaction or Change of Control shall not be deemed to have occurred solely as a result of the transfer of ownership of any shares of capital stock of the Company without the consent or agreement of the Company; provided that such proviso shall not apply to an event specified in subsection (G) of the definition of Major Transaction.

(xix) "**Mandatory Conversion Time**" means the time of any mandatory conversion of the Series D Preferred Shares required by the Charter.

(xx) "**Note**" means this Senior Secured Convertible Note (including all Senior Secured Convertible Notes issued in exchange, transfer or replacement hereof, and as may be amended, restated or supplemented from time to time).

(xxi) "**Parent Entity**" of a Person means an entity that, directly or indirectly, controls the applicable Person, or, if there is more than one such Person or Parent Entity, the Person or Parent Entity with the largest enterprise value as of the date of consummation of a Major Transaction.

(xxii) "**Per Share Underlying Common Stock Amount**" means the number of shares of Common Stock, at any relevant time, that would be issuable upon conversion of one Share, reflected as a fraction to the third decimal.

(xxiii) "**Person**" means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

(xxiv) "**Principal**" means the outstanding principal amount of this Note as of any date of determination.

(xxv) "**Publicly Traded Successor Entity**" means a Successor Entity that is a publicly traded corporation whose common stock is quoted on or listed for trading on an Eligible Market.

(xxvi) "**Qualified IPO**" means the closing of the sale of shares of the Common Stock to the public at a price of at least $1.25 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to Common Stock), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act, with at least $25,000,000 of gross proceeds to the Company and a listing of the Common Stock on the Nasdaq Stock Market or the New York Stock Exchange.

(xxvii) "**Required Conversion Conditions**" means either of the following occurring prior to June 30, 2016: (i) the United States Food & Drug Administration ("FDA") has approved, without requiring the performance of an efficiency study, the New Drug Application for KP201 for the treatment of acute pain or (ii) both (A) the FDA has accepted the New Drug Application for KP201 for review and (B) a Qualified IPO has occurred.

(xxviii) "**Required Note Holders**" means, at any time following the assignment or transfer of a portion of this Note such that the interest initially represented by this Note is represented by multiple Notes, Holders of at least 50% in interest of the Notes.

(xxix) "**Securities Act**" means the Securities Act of 1933, as amended.

(xxx) "**Series D Preferred Shares**" means shares of the Series D Preferred Stock.

(xxxi) "**Series D Preferred Stock**" means the Company's Series D Preferred Stock, par value $0.001 per share.

(xxxii) "**Shares**" means Series D Preferred Shares, Other Preferred Shares and, following the Mandatory Conversion Time, shares of Common Stock.

(xxxiii) "**Successor Entity**" means any Person purchasing the Company's assets sold in a Major Transaction or a majority of the Company's capital stock in a Major Transaction, or any successor entity resulting from such Major Transaction, or if the Note is to be convertible for shares of capital stock of its Parent Entity (as defined above), its Parent Entity.

(xxxiv) "**Trading Day**" means any day on which trading occurs on the principal securities exchanges or other securities markets in the United States.

2. Conversion Rights. This Note may be converted into Series D Preferred Shares, shares of Common Stock or Required Conversion Shares (as defined below) on the terms and conditions set forth in this Section 2.

(a) Conversion at Option of the Holder. At any time, the Holder shall be entitled to convert all or any part of the Principal (and the Interest Amount thereon) or any Interest accrued hereunder into fully paid and nonassessable Series D Preferred Shares, or, following the Mandatory Conversion Time, shares of Common Stock (collectively, together with any Required Conversion Shares, the "**Conversion Shares**") in accordance with this Section 2 at the Conversion Rate (as defined in Section 2(b)). In addition, the entire Principal shall be convertible into Required Conversion Shares at the option of the Company, as further set forth in and subject to the terms and conditions set forth in Section 2(h). The Company shall not issue any fraction of a Share upon any conversion. If the issuance would result in the issuance of a fraction of a Share, then the Company shall round such fraction of a Share up or down to the nearest whole share (with 0.5 rounded up).

(b) Conversion Rate. The number of Conversion Shares issuable upon a conversion of any portion of this Note pursuant to Section 2 shall be determined according to the following formula (the "**Conversion Rate**"):

$$\frac{\text{Conversion Amount}}{\text{Conversion Price}}$$

(c) Mechanics of Conversion. The conversion of this Note shall be conducted in the following manner:

(i) Holder's Delivery Requirements. To convert a Conversion Amount into Conversion Shares (other than Required Conversion Shares) on any date (the "**Conversion Date**", which shall also refer to the date of the Required Conversion Notice), the Holder shall (A) transmit by facsimile or electronic mail (or otherwise deliver), for receipt on or prior to 5:00 p.m. New York City time on such date, a copy of an executed conversion notice in the form attached hereto as Exhibit A (the "**Conversion Notice**") to the offices of the Company, 2656 Crosspark Road, Suite 100, Carolville, IA 52241 (Attention: Chief Executive Officer, Fax: (319) 665-2577, Email: rjohnson@kempharm.com), or such other address, facsimile number or email address as the Company may designate in writing, and (B) if required by Section 2(c)(vi), surrender to a common carrier for delivery to the Company, no later than three (3) Business Days after the Conversion Date, the original Note being converted (or an indemnification undertaking in customary form with respect to this Note in the case of its loss, theft or destruction).

(ii) Company's Response. Upon receipt or deemed receipt by the Company of a copy of a Conversion Notice or upon the date of a Required Conversion Notice (as defined below), as applicable, the Company (I) shall as soon as practicable send, via

facsimile, a confirmation of receipt of such Conversion Notice to the Holder and the Company's designated transfer agent (the "**Transfer Agent**"), if applicable, which confirmation shall constitute an instruction to any such Transfer Agent to process such Conversion Notice or Required Conversion Notice in accordance with the terms herein and (II) (A) in the case of a conversion prior to an IPO Event, on or before the fifthteenth (15th) Business Day following the date of receipt or deemed receipt by the Company of such Conversion Notice, and (B) in the case of a conversion after an IPO Event, on or before the third (3rd) Business Day following the date of receipt or deemed receipt by the Company of such Conversion Notice or the date of the Required Conversion Notice, as the case may be (the "**Share Delivery Date**"), issue and deliver to the address as specified in the Conversion Notice or otherwise specified by the Holder, a stock certificate, registered in the name of the Holder or its designee, for the number of Conversion Shares to which the Holder shall be entitled. If this Note is submitted for conversion, as may be required by Section 2(c)(vi), and the Principal represented by this Note is greater than the Principal being converted, then the Company shall, as soon as practicable and in no event later than (1) in the case of a conversion prior to an IPO Event, fifteen (15) Business Days after receipt of this Note, or (2), in the case of a conversion after an IPO Event, three (3) Business Days (the "**Note Delivery Date**") and at its own expense, issue and deliver to the Holder a new Note representing the Principal not converted and cancel this Note.

(iii) Dispute Resolution. In the case of a dispute as to the determination of the Conversion Price or the Major Transaction Note Early Termination Price (including any determination as to Fair Market Value) or the arithmetic calculation of the Conversion Rate, the Company shall issue, or instruct the Transfer Agent to issue, as applicable, to the Holder the number of Conversion Shares that is not disputed and shall transmit an explanation of the disputed determinations or arithmetic calculations to the Holder via facsimile within two (2) Business Days of receipt or deemed receipt of the Holder's Conversion Notice or other date of determination. If the Holder and the Company are unable to agree upon the determination of the Conversion Price, Major Transaction Note Early Termination Price or arithmetic calculation of the Conversion Rate within one (1) Business Day of such disputed determination or arithmetic calculation being transmitted to the Holder, then the Company shall promptly (and in any event within two (2) Business Days) submit via facsimile or email (A) the disputed determination of the Conversion Price or Major Transaction Note Early Termination Price to an independent, reputable investment banking firm agreed to by the Company and the Required Note Holders, or (B) the disputed arithmetic calculation of the Conversion Rate to the Company's independent registered public accounting firm, as the case may be. The Company shall use commercially reasonable best efforts to direct the investment bank or the accounting firm, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than two (2) Business Days from the time it receives the disputed determinations or calculations. Such investment bank's or accounting firm's determination or calculation, as the case may be, shall be binding upon all parties absent manifest error.

(iv) Record Holder. The person or persons entitled to receive the Conversion Shares issuable upon a conversion of this Note shall be treated for all purposes as the legal and record holder or holders of such Shares on the Conversion Date, or in the case of

Conversion Shares the issuance of which is subject to a *bona fide* dispute that is subject to and being resolved pursuant to, and in compliance with the time periods and other provisions of, the dispute resolution provisions of Section 2(c)(iii), the first Business Day after the resolution of such *bona fide* dispute and the fees and expenses of such investment bank or accountant shall be paid by the Company.

(v) Company's Failure to Timely Convert.

(A) Cash Damages. If, on or before the Share Delivery Date, the Company shall fail to issue and deliver a certificate to the Holder for the number of Conversion Shares (free of any restrictive legend if the Unrestricted Conditions (as defined below) are met) to which the Holder is entitled upon the Holder's conversion of any Conversion Amount, or if the Company fails to issue and deliver a new Note representing the Principal to which such Holder is entitled on or before the Note Delivery Date pursuant to Section 2(c)(ii), then in addition to all other available remedies that the Holder may pursue hereunder and under the Facility Agreement, the Company shall pay additional damages to the Holder for each 30-day period (prorated for any partial period) after the Share Delivery Date such conversion is not timely effected and/or each day after the Note Delivery Date such Note is not delivered in an amount equal to (x) in the case of a failure to deliver a certificate for the Conversion Shares, one percent (1%) of the Conversion Amount or (y) in the case of a failure to deliver a new Note, one percent (1%) of the outstanding balance of the new Note. If the Company fails to pay the additional damages set forth in this Section 2(c)(v)(A) within five (5) Business Days of the date incurred, then the Holder entitled to such payments shall have the right at any time, so long as the Company continues to fail to make such payments, to require the Company, upon written notice, to immediately issue, in lieu of such damages payments described herein, the number of Shares equal to the quotient of (X) the aggregate amount of the damages payments described in this Section 2(c)(v)(A) divided by (Y) the lower of (i) the Conversion Price in effect on such Conversion Date as specified by the Holder in the Conversion Note and (ii) the Fair Market Value Price per Conversion Share on the date of the Conversion Notice.

(B) Void Conversion Notice. If for any reason the Holder has not received all of the Conversion Shares prior to the tenth (10th) Business Day after the Share Delivery Date (a "**Conversion Failure**"), then the Holder, upon written notice to the Company (a "**Void Conversion Notice**") delivered prior to the receipt of such Conversion Shares, may void such applicable conversion with respect to, and retain or have returned, as the case may be, any portion of this Note that has not been converted pursuant to such notice; provided, that the voiding of such conversion shall not affect the Company's obligations to make any payments that have accrued prior to the date of such notice pursuant to Section 2(c)(v)(A), 2(c)(v)(C) or otherwise.

(C) Event of Default. A Conversion Failure shall constitute an Event of Default under the Facility Agreement and entitle the Lenders to all payments and remedies provided under the Facility Agreement upon the occurrence of an Event of Default.

(vi) Book-Entry. Notwithstanding anything to the contrary set forth herein, upon conversion or redemption of this Note in accordance with the terms hereof, the Holder shall not be required to physically surrender this Note to the Company unless all of the Principal is being converted or redeemed. The Holder and the Company shall maintain records showing the Principal converted or redeemed and the dates of such conversions or redemptions or shall use such other method, reasonably satisfactory to the Holder and the Company, so as not to require physical surrender of this Note upon any such partial conversion or redemption. Notwithstanding the foregoing, if this Note is converted or redeemed as aforesaid, the Holder may not transfer this Note unless the Holder first physically surrenders this Note to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Note of like tenor, registered as the Holder may request, representing in the aggregate the remaining Principal represented by this Note. The Holder and any assignee, by acceptance of this Note, acknowledge and agree that, by reason of the provisions of this paragraph, following conversion or redemption of any portion of this Note, the Principal of this Note may be less than the principal amount stated on the face hereof.

(d) Taxes. The Company shall pay any and all taxes (excluding income taxes, franchise taxes or other taxes levied on gross earnings, profits or the like of the Holder) that may be payable with respect to the issuance and delivery of Conversion Shares upon the conversion of this Note.

(e) Legends.

(i) Restrictive Legend. The Holder understands and agrees that, for so long as required pursuant to the Investor Agreements, any Conversion Shares shall contain the restrictive legends required pursuant to the terms of the Investor Agreements (the "**IA Legends**"). The Holder further understands and agrees that (A) until the Conversion Shares have been registered for sale or resale under the Securities Act, (B) are eligible for sale pursuant to Rule 144(b)(1) under the Securities Act without volume restriction or (C) have been sold pursuant to Rule 144, any Conversion Shares shall bear a restrictive legend (the "**Securities Legend**") in substantially the following form (and a stop-transfer order may be placed against transfer of the certificates for such securities):

"THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE SOLD, TRANSFERRED, ASSIGNED, PLEDGED, HYPOTHECATED OR OTHERWISE DISPOSED OF IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER SAID ACT, OR PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER SAID ACT INCLUDING, WITHOUT LIMITATION, PURSUANT TO RULES 144 OR 144A UNDER SAID ACT OR PURSUANT TO A PRIVATE SALE EFFECTED UNDER APPLICABLE FORMAL OR INFORMAL SEC INTERPRETATION OR GUIDANCE, SUCH AS A SO-CALLED "4(1) AND A HALF" SALE."

(ii) Removal of Restrictive Legends. The certificates evidencing the Conversion Shares shall not contain the Securities Legend and no legend (other than the IA Legends, if required under the Investor Agreements) shall apply restricting the transfer thereof (any such legend that the certificates evidencing the Conversion Shares shall not so contain or that shall not so apply to the Conversion Shares, as applicable, a "**Removable Legend**"): (A) while a registration statement covering the sale or resale of such security is effective under the Securities Act, or (B) following any sale of such Conversion Shares pursuant to Rule 144, or (C) if such Conversion Shares are eligible for sale under Rule 144(b)(1) without volume restriction or (D) if transfer restrictions are not required under applicable requirements of the Securities Act (including judicial interpretations and pronouncements issued by the staff of the SEC) (collectively, the "**Unrestricted Conditions**"). The Company shall use best efforts to cause its counsel to issue a legal opinion to the Transfer Agent promptly at such time as the Unrestricted Conditions have been satisfied, if required by the Transfer Agent to issue a certificate evidencing the Conversion Shares without the Removable Legends. If the Unrestricted Conditions are met at the time of issuance of the Conversion Shares, then the Conversion Shares shall be issued free of all Removable Legends. The Company agrees that following such time as the Unrestricted Conditions are met, it will, no later than three (3) Trading Days following the delivery (the "**Unlegended Shares Delivery Deadline**") by the Holder to the Company or the Transfer Agent, if applicable, of a certificate representing Conversion Shares issued with the Removable Legends (such third Trading Day following such delivery, the "**Legend Removal Date**"), deliver or cause to be delivered to such Holder one or more certificates evidencing such Conversion Shares that do not contain the Removable Legends and/or a confirmation confirming in respect of such shares that they are free from the Removable Legends.

(iii) Sale of Unlegended Shares. Holder agrees that the removal of any restrictive legends from any securities as set forth in this Section 2(e) is predicated upon the Company's reliance that the Holder will sell such Conversion Shares pursuant to either the registration requirements of the Securities Act, including any applicable prospectus delivery requirements, or an exemption therefrom, and that if such securities are sold pursuant to a registration statement, they will be sold in compliance with the plan of distribution set forth therein.

(f) Adjustments to Conversion Price.

(i) Adjustment of Conversion Price upon Issuance of Common Stock, Options, Convertible Securities, Etc.

(A) If at any time after the Mandatory Conversion Time for so long as this Note is outstanding, the Company (x) issues or sells any Common Stock, Convertible Securities, warrants, or Options or (y) directly or indirectly effectively reduces the conversion, exercise or exchange price for any Convertible Securities or Options which are currently outstanding, at or to an effective Per Share Selling Price (as defined below) which is less than the greater of (I) the closing sale price per share of the Common Stock on the principal securities exchange, trading market or quotation system on which shares of Common Stock are

then traded, listed or quoted on the Trading Day immediately preceding such issue or sale ("Fair Market Price"), or (II) the Conversion Price, then in each such case the Conversion Price in effect immediately prior to such issue or sale date, as applicable, shall be automatically reduced effective concurrently with such issue or sale to an amount determined by multiplying the Conversion Price then in effect by a fraction, (x) the numerator of which shall be the sum of (1) the number of shares of Common Stock outstanding immediately prior to such issue or sale, plus (2) the number of shares of Common Stock which the aggregate consideration received by the Company for such additional shares would purchase at such Fair Market Price or Conversion Price, as the case may be, and (y) the denominator of which shall be the number of shares of Common Stock of the Company outstanding immediately after such issue or sale. The foregoing provision shall not apply to any issuances or sales of Common Stock or Convertible Securities (i) pursuant to any Convertible Securities or Options currently outstanding on the date hereof in accordance with the terms of such Convertible Securities in effect on the date hereof provided that such securities have not been amended since the date hereof to directly or indirectly effectively reduce the conversion, exercise or exchange price for any Convertible Securities or Options which are currently outstanding, or (ii) any Common Stock issued or issuable upon exercise of any options to employees, officers, directors, consultants and advisors (and any individuals who have accepted an offer of employment), in each case in connection with any Approved Stock Plan (as defined below).

For the purposes of the foregoing adjustments, in the case of the issuance of any Convertible Securities or Options, the maximum number of shares of Common Stock issuable upon exercise, exchange or conversion of such Convertible Securities or Options shall be deemed to be outstanding, provided that no further adjustment shall be made upon the actual issuance of Common Stock upon exercise, exchange or conversion of such Convertible Securities or Options, and provided further that to the extent such Convertible Securities or Options expire or terminate unconverted or unexercised, then at such time the Conversion Price shall be readjusted as if such portion of such Convertible Securities or Options had not been issued.

For purposes of this Section 2(f), if an event occurs that triggers more than one of the above adjustment provisions, then only one adjustment shall be made and the calculation method which yields the greatest downward adjustment in the Conversion Price shall be used.

(B) Record Date. If the Company takes a record of the holders of Shares for the purpose of entitling them (1) to receive a dividend or other distribution payable in shares of Common Stock, Options or in Convertible Securities or (2) to subscribe for or purchase shares of Common Stock, Options or Convertible Securities, then such record date will be deemed to be the date of the issue or sale of the Shares deemed to have been issued or sold upon the declaration of such dividend or the making of such other distribution or the date of the granting of such right of subscription or purchase, as the case may be.

(C) Certain Definitions. For purposes of this Section 2(f), the following terms have the respective meanings set forth below:

(I) "**Approved Stock Plan**" means any employee benefit plan which has been duly adopted by a majority of the non-employee members of the Board of Directors of the Company or a majority of the members of a committee of non- employee directors established for such purpose, pursuant to which the Company's securities may be issued to any employee, consultant, advisor, officer or director (or any individual who has accepted an offer of employment) for services provided to the Company, and in all cases, providing for a Conversion Price that is at or above the fair market value (as defined in such Approved Stock Plan).

(II) "**Convertible Securities**" means any stock or securities (other than Options) directly or indirectly convertible into or exchangeable or exercisable for shares of Common Stock.

(III) "**Exempt Issuances**" shall mean: (i) prior to the IPO Event, the actual or deemed issuance of any Exempted Securities (as defined in the Charter), and (ii) on or after the IPO Event, the issuance of (a) any Common Stock issued or issuable upon exercise of any options to employees, officers, directors, consultants and advisors (and any individuals who have accepted an offer of employment), in each case in connection with any Approved Stock Plan, up to a maximum amount of Common Stock not to exceed in any one calendar year 5% of the total number of outstanding shares of the Company (as of the beginning of such calendar year, (b) securities upon the exercise, exchange of, conversion or redemption of, or payment of interest or liquidated or similar damages on, any Common Stock issued hereunder, (c) other securities exercisable, exchangeable for, convertible into, or redeemable for shares of Common Stock issued and outstanding on the date of this Note, provided that such securities have not been amended since the date of this Note to directly or indirectly increase the number of such securities or to decrease the exercise, exchange or conversion price of such securities (and including any issuances of securities pursuant to the anti- dilution provisions of any such securities), and (d) the issuance of Common Stock, Options, Convertible Securities, stock appreciation rights, phantom stock rights or other rights with equity features (collectively, "**Management Incentives**") issued or granted to employees, officers, directors, consultants and advisors (and individuals who have accepted an offer of employment), which Management Incentives have been approved by the Required Note Holders.

(IV) "**Options**" means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

(V) "**Per Share Selling Price**" shall include the amount actually paid by third parties for each share of Common Stock in a sale or issuance by the Company. In the event a fee is paid by the Company in connection with such transaction directly or indirectly to such third party or its affiliates, any such fee shall be deducted from the selling price pro rata to all shares sold in the transaction to arrive at the Per Share Selling Price. A sale of shares of Common Stock shall include the sale or issuance of Convertible Securities or Options, and in such circumstances the Per Share Selling Price of the Common Stock covered thereby shall also include the exercise, exchange or conversion price thereof (in addition to the consideration received by the Company upon such sale or issuance less the fee amount as

provided above). In case of any such security issued in a transaction in which the purchase price or the conversion, exchange or exercise price is directly or indirectly subject to adjustment or reset based on a future date, future trading prices of the Common Stock, specified or contingent events directly or indirectly related to the business of the Company or the market for the Common Stock, or otherwise (but excluding standard stock split anti-dilution provisions or weighted-average anti-dilution provisions similar to that set forth herein, provided that any actual reduction of such price under any such security pursuant to such weighted-average anti-dilution provision shall be included and cause an adjustment hereunder), the Per Share Selling Price shall be deemed to be the lowest conversion, exchange, exercise or reset price at which such securities are converted, exchanged, exercised or reset or might have been converted, exchanged, exercised or reset, or the lowest adjustment, as the case may be, over the life of such securities. If shares are issued for a consideration other than cash, the Per Share Selling Price shall be the fair value of such consideration as determined in good faith by independent certified public accountants mutually acceptable to the Company and the Holder. In the event the Company directly or indirectly effectively reduces the conversion, exercise or exchange price for any Convertible Securities or Options which are currently outstanding, then the Per Share Selling Price shall equal such effectively reduced conversion, exercise or exchange price.

(ii) Adjustment of Conversion Price upon Subdivision or Combination of Shares. If the Company at any time on or after the Issuance Date subdivides (by any stock split, stock dividend, recapitalization or otherwise) outstanding Shares into a greater number of Shares, the Conversion Price in effect immediately prior to such subdivision will be proportionately reduced. If the Company at any time on or after the Issuance Date combines (by combination, reverse stock split or otherwise) its outstanding Shares into a lesser number of Shares, the Conversion Price in effect immediately prior to such combination will be proportionately increased.

(iii) Adjustment of Conversion Price upon a Distribution of Assets. If the Company at any time on or after the Issuance Date shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of Shares, by way of return of capital or otherwise (including any distribution of cash, stock or other securities, property or options by way of a dividend, spin-off, reclassification, corporate rearrangement or other similar transaction (a "**Distribution**"), then, in each such case, the applicable Conversion Prices in effect immediately prior to the close of business on the date fixed for the determination of holders of Shares entitled to receive the Distribution shall be reduced, effective as of the close of business on such date, to a price determined by multiplying such applicable Conversion Price by a fraction of which (A) the numerator shall be the Fair Market Value of one Share immediately preceding such date minus the Fair Market Value of the Distribution applicable to one Share, and (B) the denominator shall be the Fair Market Value of one Share on the Trading Day immediately preceding such date.

(iv) Recapitalization or Reclassification. In the event of any reclassification, recapitalization, reorganization, or change affecting the Shares, or any automatic

or mandatory conversion of all of the outstanding shares of the class or series of capital stock for which this Note is then convertible (except for a conversion of the Series D Preferred Shares into Common Stock, which this Note handles by its terms), this Note shall become convertible for the kind and amount of shares of stock and other securities and property receivable in connection with such reclassification, reorganization, change or conversion by a holder of the same number of Conversion Shares as were purchasable by the Holder pursuant to conversion hereof immediately prior to such reclassification, reorganization, change or conversion. In any such case, appropriate provisions shall be made with respect to the rights and interest of the Holder so that the provisions hereof shall thereafter be applicable with respect to any shares of stock or other securities and property deliverable upon conversion hereof, and appropriate adjustments shall be made to the Conversion Price payable hereunder, provided the aggregate Conversion Price shall remain the same.

(v) Adjustment for Tax Purposes. The Company shall be entitled to make such reductions in the Conversion Price, in addition to those otherwise required by this Section 2(f), as the Company's Board of Directors in its discretion shall determine to be advisable in order that any stock dividends, subdivisions of shares, distribution of rights to purchase stock or securities, or any distribution of securities convertible into or exchangeable for stock, made after the Issuance Date by the Company to its stockholders shall not be taxable.

(vi) Other Events. If any event occurs of the type contemplated by the provisions of this Section 2(f) but not expressly provided for by such provisions (including the granting of stock appreciation rights, phantom stock rights or other rights with equity features), then the Company's Board of Directors will make an appropriate adjustment in the Conversion Price so as to protect the rights of the Holder; provided that no such adjustment will increase the Conversion Price as otherwise determined pursuant to this Section 2(f).

(vii) Notices. Promptly upon any adjustment of the Conversion Price, the Company will give written notice thereof to the Holder, setting forth in reasonable detail, and certifying, the calculation of such adjustment. The Company will give written notice to the Holder at least ten (10) Business Days prior to the date on which the Company closes its books or takes a record (I) with respect to any dividend or distribution upon the Common Stock or the Shares, (II) with respect to any pro rata subscription offer to holders of Common Stock or Shares or (III) for determining rights to vote with respect to any Major Transaction, provided that, if such notice is to be provided after the IPO Event, such information shall be made known to the public prior to or in conjunction with such notice being provided to the Holder. The Company will also give written notice to the Holder with respect to any Major Transaction as provided under Section 3(b) below.

(g) Adjustments for Diluting Issuances. The number of shares of Common Stock (or the number and type of other securities, as applicable) issuable upon conversion pursuant to the Charter of the Series D Preferred Shares into which this Note is initially convertible is subject to adjustment, from time to time, in the manner set forth in the Charter and/or Bylaws as if the Series D Preferred Shares into which this Note is convertible were issued and outstanding on and as of the date of any such required adjustment. The provisions set forth

in the Charter and/or Bylaws (and any amendment thereto) relating to adjustments to the Common Stock (or the number and type of other securities) into which Series D Preferred Shares are convertible pursuant thereto in effect as of the date hereof may not be amended, modified or waived, in a manner adverse to the holders of the shares of Series D Preferred Stock, without the prior written consent of the Holder unless (i) such amendment, modification or waiver applies on its face to all shares of Series D Preferred Stock in the same manner or (ii) such amendment, modification or waiver is approved by the Required Note Holders). Nothing in this subsection (g) shall in any way derogate from any other rights of the Holder set forth herein.

(h) Required Conversion. For the seven (7) Business Day period following the satisfaction of the Required Conversion Conditions, the Company may notify the Holder in writing (a "**Required Conversion Notice**") of its election to require the Holder to convert the entire principal amount of this Note then outstanding (subject to subsection (i) below) into Conversion Shares (a "**Required Conversion**"). Following receipt of a Required Conversion Notice, the Holder shall be entitled to receive the Conversion Shares in respect of such Required Conversion Notice within the time frame set forth in this Section 2 with respect to Conversion Shares.

(i) Limitations on Conversion. Notwithstanding anything herein to the contrary, the Company shall not issue to the Holder, and the Holder may not acquire, a number of Conversion Shares upon conversion of this Warrant to the extent that, upon such exercise, the number of shares of Common Stock then beneficially owned by the Holder and its Affiliates and any other persons or entities whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Exchange Act (including shares held by any "group" of which the Holder is a member, but excluding shares beneficially owned by virtue of the ownership of securities or rights to acquire securities that have limitations on the right to convert, exercise or purchase similar to the limitation set forth herein) would exceed 9.985% of the total number of the shares of Common Stock then issued and outstanding (the "9.985% Cap")); provided that the 9.985% Cap shall not apply to the extent that shares of Common Stock are not deemed to constitute "equity securities" pursuant to Rule 13d-1(i) under the Exchange Act and, provided further, that the 9.985% Cap shall not apply to an exercise effected following receipt of a Major Transaction Notice (as defined below) in respect of a Major Transaction (as defined below) described in clause (A) of the definition of Major Transaction above in which the Company will not be the surviving entity, until consummation or abandonment of such Major Transaction and, provided further, that the 9.985% Cap shall not apply to the conversion of this Note into IPO Conversion Shares. For the avoidance of doubt, a conversion hereunder (whether at the election of the Holder or the Company) shall be null and void to the extent the issuance of shares upon such conversion would violate this subsection (i).

3. Rights Upon Major Transaction. Notwithstanding anything contained herein or in the Facility Agreement to the contrary, in the event that a Major Transaction occurs, then the Holder, at its option, may require the Company to redeem all or any portion of the Principal (and the Interest Amount thereon) outstanding on the Holder's Notes for cash in accordance with Section 3(b) below. In the event the Holder shall not have exercised any of its rights under the immediately preceding sentence within the applicable time periods set forth herein, then the

Major Transaction shall be treated as an Assumption (as defined below) in accordance with Section 3(a) below unless the Holder waives its rights under this Section 3 with respect to such Major Transaction. For the avoidance of doubt, the Holder may waive the above provisions of this Section 3 with respect to any Major Transaction and, without limitation, may elect to convert this Note in accordance with the other terms hereof prior to any Major Transaction.

(a) Assumption. The Company shall not enter into or be party to a Major Transaction that is to be treated as an Assumption pursuant to this Section 3, unless any Successor Entity assumes in writing all of the obligations of the Company under this Note and provides (a) registration rights that are comparable to those provided to the initial Holder under the Investor Rights Agreement, if the Successor Entity is not a Publicly Traded Successor Entity, or (B) resale registration rights reasonably acceptable to the Holder, if the Successor Entity is a Publicly Traded Successor Entity, in accordance with the provisions of this Section 3(a) pursuant to written agreements and instruments in form and substance reasonably satisfactory to the Holder and approved by the Holder prior to such Major Transaction (not to be unreasonably withheld or delayed), including a security of the Successor Entity evidenced by a written instrument (a "**Replacement Note**") substantially similar in form and substance to the Notes, including, without limitation, representing the appropriate number of shares of the Successor Entity, having similar conversion rights as the Notes (including but not limited to a similar Conversion Price and similar Conversion Price adjustment provisions based on the price per share or conversion ratio, and taking into account any cash consideration, to be received by the holders of Conversion Shares in the Major Transaction) and providing for conversion into the shares of the Successor Entity into or for which shares of the same class and series as the Shares are to be converted or exchanged ("**Successor Conversion Shares**"). Upon the occurrence of any Major Transaction, but only if a Replacement Note has not been delivered to the Holder in connection therewith, any Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Major Transaction, the provisions of this Note referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Note with the same effect as if such Successor Entity had been named as the Company herein. Upon consummation of the Major Transaction, but only if a Replacement Note has not been delivered to the Holder in connection therewith, any Successor Entity shall deliver to the Holder confirmation that there shall be issued upon conversion or redemption of this Note at any time after the consummation of the Major Transaction, in lieu of the Conversion Shares (or other securities, cash, assets or other property) issuable upon the conversion of the Notes prior to such Major Transaction, such Successor Conversion Shares in accordance with the provisions of this Note. The provisions of this Section shall apply similarly and equally to successive Major Transactions and shall be applied without regard to any limitations on the conversion of this Note, including any applicable beneficial ownership limitations. Any assumption of Company obligations under this paragraph shall be referred to herein as an "**Assumption**."

(b) Notice; Major Transaction Early Termination Right. At least fifteen (15) days prior to the consummation of any Major Transaction, but, in any event, within five (5) Business Days following the first to occur of (x) the date of the public announcement of such Major Transaction if such announcement is made before 4:00 p.m., New York City time, (y) the

day following the public announcement of such Major Transaction if such announcement is made on and after 4:00 p.m., New York City time, and (z) the date of execution of the definitive agreement with respect to a Major Transaction, if such agreement is executed prior to an IPO Event, the Company shall deliver written notice thereof via facsimile and overnight courier to the Holder (a "**Major Transaction Notice**"). At any time during the period beginning after the Holder's receipt of a Major Transaction Notice and ending five (5) Trading Days prior to the consummation of such Major Transaction (the "**Early Termination Period**"), the Holder may require the Company to redeem (an "**Early Termination Upon Major Transaction**") all or any portion of the outstanding portion of this Note (without regard to any ownership limitations) by delivering written notice thereof ("**Major Transaction Early Termination Notice**") to the Company, which Major Transaction Early Termination Notice shall indicate the portion (the "**Early Termination Portion**") of this Note that the Holder is electing to have so redeemed. The Early Termination Portion shall be redeemed by the Company at a price (the "**Major Transaction Note Early Termination Price**") payable in cash equal to the greater of (1) the Principal amount of the Early Termination Portion and the Interest Amount thereon (additionally including, for this purpose, any interest that would have accrued on such Principal amount from the date of the Major Transaction until the then applicable maturity date of the Note were such Principal amount on the Note outstanding throughout such period), and (2) the amount of cash payable or distributable per Conversion Share plus the Fair Market Value of any property (other than cash) payable or distributable per Conversion Share (or the shares of Common Stock into which such Conversion Shares are then convertible, if greater), in each case, pursuant to the terms of the Charter in connection with such Major Transaction.

(c) Payment of Major Transaction Note Early Termination Price. Following the receipt of a Major Transaction Early Termination Notice from the Holder, the Company shall not effect a Major Transaction that is being treated as an early termination unless it obtains the written agreement of any Successor Entity that payment of the Major Transaction Note Early Termination Price shall be made to the Holder prior to or concurrently with consummation of such Major Transaction (subject to any holdbacks or escrows applicable to such payment pursuant to the applicable acquisition agreement and subject to standard non-material conditions on such payment imposed by such Successor Entity, such as surrender of this Note and delivery of a letter of transmittal and an applicable IRS Form W-9 or applicable W-8, if applicable), and such payment shall be a condition precedent or concurrent to consummation of such Major Transaction.

(d) Injunction. Following the receipt of a Major Transaction Early Termination Notice from the Holder, in the event that the Company attempts to consummate a Major Transaction without the Major Transaction Note Early Termination Price being paid to the Holder prior to or concurrently with the consummation of such Major Transaction in accordance with Section 3(c) above, or obtaining any written agreement of the Successor Entity required by Section 3(c) above, the Holder shall have the right to apply for an injunction in any state or federal courts sitting in the City of New York, borough of Manhattan to prevent the closing of such Major Transaction until the Major Transaction Note Early Termination Price is paid to the Holder, in full.

Any payment determined pursuant to clause (1) of Section 3(b) in connection with an early termination shall have priority to payments to holders of capital stock in connection with a Major Transaction and to the extent an early termination required by this Section 3 is deemed or determined by a court of competent jurisdiction to be prepayments of the Note by the Company, such early termination shall be deemed to be voluntary prepayments. Notwithstanding anything to the contrary in this Section 3, until the Major Transaction Note Early Termination Price is paid in full (excluding any amount subject to escrows or holdbacks and any other contingent consideration that has not accrued), this Note may be converted, in whole or in part, by the Holder into Shares, or in the event the Conversion Date is after the consummation of a Major Transaction, Successor Conversion Shares pursuant to this Section 3. The parties hereto agree that in the event of the early termination of any portion of the Note under this Section 3, the Holder's damages would be uncertain and difficult to estimate because of the parties' inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for the Holder. Accordingly, any premium due under this Section 3 is intended by the parties to be, and shall be deemed, a reasonable estimate of the Holder's actual loss of its investment opportunity and not as a penalty.

4. Amendment; Waiver. The terms and provisions of this Note shall not be amended or waived except in a writing signed by the Company and the Holder, provided that the Company and the Required Note Holders may in writing amend the Notes on behalf of all of the Holders of Notes.

5. Remedies, Characterizations, Other Obligations, Breaches and Injunctive Relief. The remedies provided in this Note shall be cumulative and in addition to all other remedies available under this Note, the Facility Agreement, at law or in equity (including a decree of specific performance and/or other injunctive relief). No remedy contained herein shall be deemed a waiver of compliance with the provisions giving rise to such remedy, and nothing herein shall limit the Holder's right to pursue actual damages for any failure by the Company to comply with the terms of this Note. The Company covenants to the Holder that, except as may be set forth in the Facility Agreement, there shall be no characterization concerning this instrument other than as expressly provided herein. Amounts set forth or provided for herein with respect to payments, conversion and the like (and the computation thereof) shall be the amounts to be received by the Holder thereof and shall not, except as expressly provided herein, be subject to any other obligation of the Company (or the performance thereof). The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the Holder shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

6. Specific Shall Not Limit General; Construction. No specific provision contained in this Note shall limit or modify any more general provision contained herein. This Note shall be deemed to be jointly drafted by the Company and all purchasers of Notes pursuant to the Facility Agreement and shall not be construed against any Person as the drafter hereof.

7. Failure or Indulgence Not Waiver. No failure or delay on the part of the Holder in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege.

8. Notices. Whenever notice is required to be given under this Note, unless otherwise provided herein, such notice shall be given in accordance with Section 4.1 of the Facility Agreement.

9. Restrictions on Transfer.

(a) Registration or Exemption Required. This Note has been issued in a transaction exempt from the registration requirements of the Securities Act by virtue of Regulation D and exempt from state registration or qualification under applicable state laws. None of the Note or the Conversion Shares may be pledged, transferred, sold, assigned, hypothecated or otherwise disposed of except pursuant to an effective registration statement or an exemption to the registration requirements of the Securities Act and applicable state laws including, without limitation, a so-called "4(1) and a half" transaction.

(b) Assignment. Subject to Section 6.5 of the Facility Agreement, the Holder may sell, transfer, assign, pledge, hypothecate or otherwise dispose (collectively, "**Transfer**") of this Note, in whole or in part. Holder shall deliver a written notice to Company, substantially in the form of the Assignment attached hereto as Exhibit B, indicating the Person or Persons to whom the Note shall be Transferred and the respective principal amount of the Note to be Transferred to each assignee. The Company shall effect the Transfer within (i) five (5) Business Days, in the case of a transfer occurring prior to an IPO Event, and (ii) three (3) Business Days, in the case of a transfer occurring following the IPO Event (the "**Transfer Delivery Period**"), and shall deliver to the assignee(s) designated by Holder a Note or Notes of like tenor and terms for the appropriate principal amount. This Note and the rights evidenced hereby shall inure to the benefit of and be binding upon the successors and assigns of the Holder. The provisions of this Note are intended to be for the benefit of all Holders from time to time of this Note, and shall be enforceable by any such Holder. For avoidance of doubt, in the event Holder notifies the Company that such sale or transfer is a so called "4(1) and half" transaction, the parties hereto agree that a legal opinion from outside counsel for the Holder delivered to counsel for the Company substantially in the form attached hereto as Exhibit C shall be the only requirement to satisfy an exemption from registration under the Securities Act to effectuate such "4(1) and half" transaction.

10. Payment of Collection, Enforcement and Other Costs. If (a) this Note is placed in the hands of an attorney for collection or enforcement or is collected or enforced through any legal proceeding; or (b) an attorney is retained to represent the Holder in any bankruptcy, reorganization, receivership of the Company or other proceedings affecting Company creditors' rights and involving a claim under this Note, then the Company shall pay the costs incurred by the Holder for such collection, enforcement or action, including reasonable attorneys' fees and disbursements.

11. Cancellation. After all Principal, Interest and other amounts at any time owed under, or on account of, this Note have been paid in full or converted into Shares in accordance with the terms hereof, this Note shall automatically be deemed cancelled, shall be surrendered to the Company for cancellation and shall not be reissued.

12. Registered Note. This Note may be transferred only upon notation of such transfer on the Register, and no assignment thereof shall be effective until recorded therein.

13. Waiver of Notice. To the extent permitted by law, the Company hereby waives demand, notice, presentment, protest and all other demands and notices in connection with the delivery, acceptance, performance, default or enforcement of this Note and the Facility Agreement.

14. Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Note shall be governed by and construed and enforced in accordance with the laws of the State of New York applicable to contracts made and to be performed in such State. All legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Note (whether brought against a party or its respective affiliates, directors, officers, shareholders, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Note and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. The parties hereby waive all rights to a trial by jury.

15. Interpretative Matters. Unless the context otherwise requires, (a) all references to Sections or Exhibits are to Sections or Exhibits contained in or attached to this Note, (b) each accounting term not otherwise defined in this Note has the meaning assigned to it in accordance with GAAP, (c) words in the singular or plural include the singular and plural and pronouns stated in either the masculine, the feminine or neuter gender shall include the masculine, feminine and neuter and (d) the use of the word “including” in this Note shall be by way of example rather than limitation. If a stock split, stock dividend, stock combination or other similar event occurs during any period over which an average price is being determined, then an appropriate adjustment will be made to such average to reflect such event.

16. Execution. A facsimile, telecopy, PDF or other reproduction of this Note may be delivered by the Company, and an executed copy of this Note may be delivered by the Company

by facsimile, e-mail or other similar electronic transmission device pursuant to which the signature of or on behalf of the Company can be seen, and such execution and delivery shall be considered valid, binding and effective for all purposes. The Company hereby agrees that it shall not raise the execution of facsimile, PDF or other reproduction of this Note, or the fact that any signature was transmitted by facsimile, e-mail or other similar electronic transmission device, as a defense to the Company's execution of this Note. Notwithstanding the foregoing, the Company shall be required to deliver an originally executed Note to the Holder.

[Signature page follows]

IN WITNESS WHEREOF, the Company has caused this Senior Secured Convertible Note to be duly executed as of the date first set forth above.

COMPANY:

KEMPHARM, INC.

By: /s/ Travis C. Mickle

Exhibit A

CONVERSION NOTICE

Reference is made to the Senior Secured Convertible Note (the "**Note**") of **KEMPHARM, INC.**, a Delaware corporation (the "**Company**"), in the original principal amount of $10,000,000. In accordance with and pursuant to the Note, the undersigned hereby elects to convert the Conversion Amount (as defined in the Note) of the Note indicated below into shares of the Company, as of the date specified below.

Date of Conversion:_____

Aggregate Conversion Amount to be converted at the Conversion Price (as defined in the Note):

_____

Principal, applicable thereto, to be converted:_____

Interest, applicable thereto, to be converted:`_____

Please confirm the following information:

Conversion Price:_____

Number of shares of [ ] to be issued:_____

Please issue the [ ] into which the Note is being converted in the following name and to the following address:

Issue to:_____

Facsimile Number:_____

Authorization:_____

By:_____
Title:_____

Dated:_____

ACKNOWLEDGMENT

The Company hereby acknowledges this Conversion Notice and hereby directs [TRANSFER AGENT] to issue the above indicated number of shares of Common Stock in accordance with the Irrevocable Transfer Agent Instructions dated [ ], 2014 from the Company and acknowledged and agreed to by [TRANSFER AGENT].

KEMPHARM, INC.

By: _____

Name: _____

Title: _____

Exhibit B

ASSIGNMENT

(To be executed by the registered holder
desiring to transfer the Note)

FOR VALUE RECEIVED, the undersigned holder of the attached Senior Secured Convertible Note (the "Note") hereby sells, assigns and transfers unto the person or persons below named the right to receive the principal amount of $ from KEMPHARM, INC., a [ ] corporation, evidenced by the attached Note and does hereby irrevocably constitute and appoint attorney to transfer the said Note on the books of the Company, with full power of substitution in the premises.

Dated:

Signature

Fill in for new registration of Note:

Name

Address

Please print name and address of assignee
(including zip code number)

NOTICE

The signature to the foregoing Assignment must correspond to the name as written upon the face of the attached Note in every particular, without alteration or enlargement or any change whatsoever.

Exhibit C

FORM OF OPINION

_____, 20____

[_____]

Re: KEMPHARM, INC. (the "Company")

Dear Sir:

[ ] ("[ ]") intends to transfer its Senior Secured Convertible Note in the principal amount of $ (the "Note") of the Company to (" ") without registration under the Securities Act of 1933, as amended (the "Securities Act"). In connection herewith, we have examined such documents and issues of law as we have deemed relevant.

Based on and subject to the foregoing, we are of the opinion that the transfer of the Note by to may be effected without registration under the Securities Act, provided, however, that the Note to be transferred to contain a legend restricting its transferability pursuant to the Securities Act and that transfer of the Note is subject to a stop order.

The foregoing opinion is furnished only to and may not be used, circulated, quoted or otherwise referred to or relied upon by you for any purposes other than the purpose for which furnished or by any other person for any purpose, without our prior written consent.

Very truly yours,

THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOF HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR ANY STATE SECURITIES LAW, AND MAY NOT BE SOLD, TRANSFERRED, ASSIGNED, PLEDGED, HYPOTHECATED OR OTHERWISE DISPOSED OF OR EXERCISED UNLESS (I) A REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS SHALL HAVE BECOME EFFECTIVE WITH REGARD THERETO, OR (II) AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS IS AVAILABLE IN CONNECTION WITH SUCH OFFER, SALE OR TRANSFER.

AN INVESTMENT IN THESE SECURITIES INVOLVES A HIGH DEGREE OF RISK. HOLDERS MUST RELY ON THEIR OWN ANALYSIS OF THE INVESTMENT AND ASSESSMENT OF THE RISKS INVOLVED.

Warrant to Purchase
14,423,076 shares

Warrant Number
W-74

Warrant to Purchase Shares of Series D Preferred Stock
of
Kempharm, Inc.

THIS CERTIFIES that Deerfield Private Design Fund III, L.P. or any subsequent holder hereof ("Holder") has the right to subscribe for and acquire from Kempharm, Inc., a Delaware corporation (the "Company") (i) prior to the Mandatory Conversion Time (as defined below), Fourteen Million Four Hundred Twenty-Three Thousand Seventy-Six (14,423,076), fully paid and nonassessable shares of the Company's Series D Convertible Preferred Stock, no par value ("Series D Preferred Stock"), and (ii) to the extent unexercised at the Mandatory Conversion Time (as defined below), from and after the Mandatory Conversion Time a number of fully paid and nonassessable shares of the Company's Common Stock, no par value ("Common Stock"), equal to the Common Stock Amount (as defined below) (such shares of Series D Preferred Stock or Common Stock, as the case may be, issuable upon exercise of this Warrant, the "Shares"), subject to the terms set forth herein, at a price equal to the Exercise Price as defined in Section 3 below, at any time during the Term (as defined below).

Holder agrees with the Company that this Warrant to Purchase Shares of the Company (this "Warrant" or this "Agreement") is issued and all rights hereunder shall be held subject to all of the conditions, limitations and provisions set forth herein.

1. Date of Issuance and Term.

This Warrant shall be deemed to be issued on June 2, 2014 ("Date of Issuance"). The term of this Warrant begins on the Date of Issuance and ends at 5:00 p.m., New York City time, on June 2, 2024 (the "Term"). This Warrant was issued in conjunction with that certain Facility Agreement (the "Facility Agreement") by and among the Company and Deerfield Private Design Fund III, L.P., dated June 2, 2014, entered into in conjunction herewith.

Notwithstanding anything herein to the contrary, the Company shall not issue to the Holder, and the Holder may not acquire, a number of Shares upon exercise of this Warrant to the extent that, upon such exercise, the number of shares of Common Stock then beneficially owned by the Holder and its Affiliates and any other persons or entities whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (including shares held by any "group" of which the Holder is a member, but excluding shares beneficially owned by virtue of the ownership of securities or rights to acquire securities that have limitations on the right to convert, exercise or purchase similar to the limitation set forth herein) would exceed 9.985% of the total number of the shares of Common Stock then issued and

outstanding (the "9.985% Cap")); provided that the 9.985% Cap shall not apply to the extent that shares of Common Stock are not deemed to constitute "equity securities" pursuant to Rule 13d-1(i) under the Exchange Act and, provided further, that the 9.985% Cap shall not apply to an exercise effected following receipt of a Major Transaction Notice (as defined below) in respect of a Major Transaction (as defined below) described in Section 5(c)(i)(A) below in which the Company is not the surviving entity until consummation or abandonment of such Major Transaction.

"Affiliate" means any person or entity that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a person or entity, as such terms are used in and construed under Rule 144 under the Securities Act of 1933, as amended (the "Securities Act"). With respect to a Holder of Warrants, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as such Holder will be deemed to be an Affiliate of such Holder.

For purposes hereof:

"Business Day" means a day other than a day on which commercial banks are authorized or required by law to close in the City of New York.

"Common Stock Amount" means a number of shares of Common Stock of the Company equal to (x) the number of shares of Series D Preferred Stock issuable upon a full Cash Exercise of this Warrant immediately prior to the Mandatory Conversion Time, multiplied by (y) the Per Share Underlying Common Amount at such time.

"Exchange Act" means the Securities Exchange Act of 1934, as amended.

"Fair Market Value" means the fair market value as mutually determined by the Company and the Required Holders (as defined below), subject to the dispute resolution provisions set forth in Section 3(b) below.

"Holder" means Deerfield Special Situations International Master Fund, L.P. and any transferee or assignee pursuant to the terms of this Warrant.

"Initial Warrantholders" shall mean the initial Holders of this Warrant and the initial holders of the other Warrants issued pursuant to the Facility Agreement.

"Investor Agreements" shall mean the Right of First Refusal and Co-Sale Agreement, dated as of June 2, 2014, by and among the Company and the stockholders party thereto, the Investors' Rights Agreement (the "Investor Rights Agreement"), dated as of June 2, 2014, by and among the Company and the stockholders party thereto, and the Voting Agreement, dated as of June 2, 2014, by and among the Company and the stockholders party thereto.

"Mandatory Conversion Time" means the time of any mandatory conversion of the shares of Series D Preferred Stock required by the Company's certificate of incorporation (as it may be amended or restated from time to time (the "Charter")).

"Per Share Underlying Common Amount" means the number of shares of Common Stock, at any relevant time, that would be issuable upon conversion of one share of Series D Preferred Stock, reflected as a fraction to the third decimal.

"Required Holders" means holders of a majority in interest of the Warrants.

2. Exercise.

(a) Manner of Exercise. During the Term, this Warrant may be Exercised as to all or any lesser number of whole Shares covered hereby (the "Warrant Shares") by sending the Exercise Form attached hereto as Exhibit A (the "Exercise Form") duly completed and executed, for each Share as to which this Warrant is Exercised, at the office of the Company, 2656 Crosspark Road, Suite 100, Coralville, IA 52441, or at such other office or agency as the Company may designate in writing, by overnight mail, facsimile (319) 665-2577, or electronic mail (rjohnson@kempharm.com) (such exercise hereinafter called the "Exercise" of this Warrant).

(b) Date of Exercise. The "Date of Exercise" of the Warrant shall be defined as the date that the Exercise Form attached hereto as Exhibit A, completed and executed, is sent to the Company (whether transmission by the Holder is by facsimile, electronic mail or mail), provided that the Exercise Price is satisfied, within two (2) Business Days thereafter. Upon delivery of the Exercise Form to the Company by electronic mail, facsimile or otherwise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been Exercised, irrespective of the date such Warrant Shares are issued or delivered. The Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date the final Exercise Notice is delivered to the Company. Execution and delivery of the Exercise Notice shall have the same effect as cancellation of the original Warrant and issuance of a New Warrant evidencing the right to purchase the remaining number of Warrant Shares, if any.

(c) Delivery of Shares. Upon Exercise. Upon an exercise of this Warrant, within the Delivery Period (as defined below), the Company shall issue and deliver (or cause its transfer agent (the "Transfer Agent")) to issue and deliver, if applicable), in accordance to the terms hereof to or upon the order of the Holder, that number of Shares for the portion of this Warrant exercised as shall be determined in accordance herewith. Upon the Exercise of this Warrant or any part hereof, the Company shall, at its own cost and expense, take all necessary action, including the instructions to and the costs associated with obtaining and delivering an opinion of counsel, if applicable, to assure that any such Transfer Agent shall, to the extent applicable issue stock certificates in the name of Holder (or its nominee) or such other persons as designated by Holder and in such denominations to be specified at Exercise representing the number of Shares issuable upon such Exercise. "Delivery Period" means the period beginning on the Date of Exercise and ending (i) in the case of an exercise made prior to an IPO Event, fifteen (15) Business Days after such Date of Exercise and (ii) in the case of an exercise made after an IPO Event, three (3) Business Days after such Date of Exercise. "Exercise Shares" means the number of Shares that are issuable by the Company in respect of an exercise hereunder.

(d) Delivery Failure. In addition to any other remedies which may be available to the Holder, in the event that the Company fails for any reason to effect issuance or delivery of the Exercise Shares by the end of the Delivery Period (a "Delivery Failure"), the Holder will be entitled to revoke all or part of the relevant Exercise Form by delivery of a notice to such effect to the Company whereupon the Company and the Holder shall each be restored to their respective positions immediately prior to the delivery of such notice, except that the liquidated damages described herein shall be payable through the date notice of revocation or rescission is given to the Company (or until the date the applicable Exercise Shares are delivered, if earlier).

(e) Legends.

(i) Restrictive Legend. The Holder understands that, for so long as required pursuant to the Investor Agreements, the Exercise Shares shall contain the restrictive legends required pursuant to the terms of the Investor Agreements (the "IRA Legends"). The Holder further understands that following the later of the Mandatory Conversion Time and the IPO Event, until the Exercise Shares have been registered for resale under the Securities Act or otherwise may be sold pursuant to Rule 144 under the Securities Act or an exemption from registration under the Securities Act without any restriction as to the number of securities as of a particular date that can then be immediately sold is available, the Exercise Shares may bear a restrictive legend (the "Securities Legend") or the Securities Legend shall apply, as applicable, in substantially the following form (and a stop-transfer order may be placed against transfer of the certificates for such securities):

> "THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE SOLD, TRANSFERRED OR ASSIGNED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER SAID ACT, OR PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER SAID ACT INCLUDING, WITHOUT LIMITATION, PURSUANT TO RULES 144 OR 144A UNDER SAID ACT

OR PURSUANT TO A PRIVATE SALE EFFECTED UNDER APPLICABLE FORMAL OR INFORMAL SEC INTERPRETATION OR GUIDANCE, SUCH AS A SO-CALLED "4(1) AND A HALF" SALE."

(ii) Removal of Restrictive Legends. The Exercise Shares shall not contain the Securities Legend and no legend (other than the IRA Legends, if required under the Investor Agreements) shall apply, as applicable, restricting the transfer thereof: (A) while a registration statement covering the sale or resale of such security is effective under the Securities Act, or (B) following any sale of such Exercise Shares pursuant to Rule 144, or (C) if such Exercise Shares are eligible for sale under Rule 144(b)(1) without volume restriction, or (D) if transfer restrictions are not required under applicable requirements of the Securities Act (including judicial interpretations and pronouncements issued by the staff of the SEC) (collectively, the "Unrestricted Conditions"). Upon request to the Company by Holder to remove the Securities Legend from any Exercise Shares or to issue Exercise Shares without the Securities Legend upon exercise of the Warrant, in either case based on an Unrestricted Condition being met, the Company shall cause its counsel to issue a legal opinion to the Transfer Agent promptly after the satisfaction of an Unrestricted Condition if required by the Company's transfer agent to effect the issuance of the Exercise Shares without such restrictive legend or removal of the legend hereunder, subject, in respect of a legend removal request prior to effectiveness of a registration statement covering the resale of the Warrant Shares, receipt by such counsel of certification of the holder of the Exercise Shares that it is not at such time, and has not been during the previous three month period, an affiliate of the Company (a "Rule 144 Certification"). If an Unrestricted Condition is met at the time of issuance of the Exercise Shares, then such Exercise Shares shall be issued free of all legends (other than any IRA Legends required under the Investor Agreements). The Company agrees that following such time as an Unrestricted Condition is met or such legend is otherwise no longer required under this Section 2(e), it will, upon delivery of a written request to the Company by the holder of the Exercise Shares to remove the Securities Legend based upon an Unrestricted Condition being met, no later than the date (such date, the "Legend Removal Date") that is the later of (A) three (3) Trading Days (or fifteen (15) Business Days if prior to an IPO Event) following the delivery by the holder to the Company or the Transfer Agent of the Exercise Shares, issued with such restrictive legend and (B) if (and only if) a Rule 144 Certification is required by the second sentence of this paragraph, two (2) Business Days after the date of delivery of the Rule 144 Certification to counsel to the Company, deliver or cause to be delivered to such holder the Exercise Shares free of all restrictive legends, and/or a confirmation (or electronic transfer) confirming in respect of such shares that it is free from all restrictive and other legends (other than any IRA Legends then required under the Investor Agreements).

(iii) Sale of Unlegended Shares. Holder agrees that the removal of the restrictive legend from any securities as set forth in Section 2(e) above is predicated upon the Company's reliance that the Holder will sell such Exercise Shares pursuant to either the registration requirements of the Securities Act, including any applicable prospectus delivery requirements, or a valid exemption therefrom, and that if such securities are sold pursuant to a Registration Statement, they will be sold in compliance with the plan of distribution set forth therein.

(f) Cancellation of Warrant. This Warrant shall be canceled upon the full Exercise, of this Warrant, and, as soon as practical after the Date of Exercise, Holder shall be entitled to receive Shares for the number of shares purchased upon such Exercise of this Warrant, and if this Warrant is not Exercised in full, Holder shall be entitled to receive a new Warrant (containing terms identical to this Warrant) representing any unexercised portion of this Warrant in addition to such Shares; provided, however, as set forth in Section 2(b), Holder shall not be required to physically surrender this warrant if the Warrant is not exercised in full.

(g) Holder of Record. Each person in whose name any Warrant for Shares is issued shall, for all purposes, be deemed to be the Holder of record of such shares on the Date of Exercise of this Warrant, irrespective of the date of delivery or issuance of the Shares purchased upon the Exercise of this Warrant.

(h) Delivery of Electronic Shares. Following the Mandatory Conversion Time, in lieu of delivering physical certificates representing the Common Stock issuable upon Exercise or legend removal, or representing Failure Payment Shares, provided the Transfer Agent is participating in the DTC Fast Automated Securities Transfer ("FAST") program, upon written request of the Holder, the Company shall use its best efforts to cause its Transfer Agent to electronically transmit the Common Stock issuable upon Exercise to the Holder by crediting the account of the Holder's prime broker with DTC through its Deposit Withdrawal Agent Commission (DWAC) system. The time periods for delivery and penalties described herein shall apply to the electronic transmittals described herein. Any delivery not effected by electronic transmission shall be effected by delivery of physical certificates.

(i) Buy-In. Following the Mandatory Conversion time, in addition to any other rights available to the Holder, if the Company fails to cause its Transfer Agent to transmit to the Holder a certificate or certificates, or electronic shares through DWAC, representing the Exercise Shares pursuant to an Exercise on or before the Delivery Period, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Exercise Shares which the Holder anticipated receiving upon such Exercise (a "Buy-In"), then the Company shall (1) pay in cash to the Holder the amount by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (A) the number of Exercise Shares that the Company was required to deliver to the Holder in connection with the Exercise at issue times and (B) the price at which the sell order giving rise to such purchase obligation was executed, and (2) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Exercise Shares for which such Exercise was not honored or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its Exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted Exercise to cover the sale of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (1) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In, together with applicable confirmations and other evidence reasonably requested by the Company. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver certificates representing shares of Common Stock upon Exercise of the Warrant as required pursuant to the terms hereof.

3. Payment of Warrant Exercise Price for Cash Exercise or Cashless Exercise; Cashless Major Exercise and Cashless Default Exercise.

(a) Exercise Price. The Exercise Price ("Exercise Price") shall equal $0.78 per share (with respect to shares of Series D Preferred Stock) and, from and after the Mandatory Conversion Time shall equal the Exercise Price in effect immediately prior to the Mandatory Conversion Time divided by the prevailing Per Share Underlying Common Amount, subject to adjustment pursuant to the terms hereof, including but not limited to Section 5 below.

Payment of the Exercise Price may be made by either of the following, or a combination thereof, at the election of Holder:

(i) Cash Exercise: The Holder may exercise this Warrant in cash, bank or cashier's check, wire transfer or through a reduction of an amount of principal outstanding under any Notes (as defined in the Facility Agreement) in accordance with Section 2.3(b) of the Facility Agreement, then held by the Holder (a "Cash Exercise"); or

(ii) Cashless Exercise: The Holder, at its option, may exercise this Warrant in a cashless exercise transaction. In order to effect a Cashless Exercise, the Holder shall send to the Company (via overnight mail, electronic mail or facsimile) at its principal office a notice of cashless election, in which event the Company shall issue Holder a number of Shares computed using the following formula (a "Cashless Exercise"):

$$X = Y (A-B)/A$$

where: X= the number of Shares to be issued to Holder.

Y = the number of Shares for which this Warrant is being Exercised.

A = (i) prior to an IPO Event, the Fair Market Value of each Share and (ii) after an IPO Event the product of (x) the applicable Per Share Underlying Common Amount immediately following such Exercise multiplied by (y) the Market Price of one (1) share of Common Stock (for purposes of this Section 3(a)(ii),

where “Market Price,” as of any date, means the Volume Weighted Average Price (as defined herein) of a share of the Company’s Common Stock during the ten (10) consecutive Trading Day period immediately preceding the date in question); provided, that if the Mandatory Conversion Time shall have occurred, such amount shall equal the Market Price of one (1) share of Common Stock.

B = the Exercise Price.

As used herein, the “Volume Weighted Average Price” for any security as of any date means the volume weighted average sale price of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg Financial Markets or an equivalent, reliable reporting service mutually acceptable to and hereafter designated by holders of a majority in interest of the Warrants and the Company (“Bloomberg”), or, if no volume weighted average sale price is reported for such security, then the last closing trade price of such security as reported by Bloomberg, or, if no last closing trade price is reported for such security by Bloomberg, the average of the bid prices of any market makers for such security that are listed in the over the counter market by the Financial Industry Regulatory Authority, Inc. or on the OTC Pink Market operated by the OTC Markets Group, Inc. If the Volume Weighted Average Price cannot be calculated for such security on such date in the manner provided above (including because the Company’s Shares are not then listed on any principal securities exchange or trading market or any over the counter market), the Volume Weighted Average Price shall be the Fair Market Value for which the calculation of the Volume Weighted Average Price is required in order to determine the Exercise Price of such Warrants. “Trading Day” shall mean any day on which the Shares are traded for any period on the principal securities exchange or other securities market on which the Shares are then being traded or, prior to such time as the Shares are so traded, shall mean any Business Day.

For purposes of Rule 144 and sub-section (d)(3)(x) thereof, it is intended, understood and acknowledged that the Shares issuable upon Exercise of this Warrant in a Cashless Exercise transaction and the shares of Common Stock issuable upon conversion of such Shares shall be deemed to have been acquired at the time this Warrant was originally issued. Moreover, it is intended, understood and acknowledged that the holding period for the Shares issuable upon Exercise of this Warrant in a Cashless Exercise transaction and the shares of Common Stock issuable upon conversion of such Shares shall be deemed to have commenced on the date this Warrant was issued. As provided in Section 2(b), the Holder shall only be required to physically surrender this Warrant in the event that the Holder is exercising this Warrant in full.

(b) Dispute Resolution. In the case of a dispute as to the determination of the closing price, the Volume Weighted Average Price or the Fair Market Value or the arithmetic calculation of the Exercise Price, Market Price or any Major Transaction Warrant Early Termination Price, the Company shall submit the disputed determinations or arithmetic calculations via facsimile within two (2) Business Days of receipt, or deemed receipt, of the Exercise Notice, or other event giving rise to such dispute, as the case may be, to the Holder. If the Required Holders and the Company are unable to agree upon such determination or calculation within two (2) Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two (2) Business Days submit via facsimile (i) the disputed determination of the closing price, the Volume Weighted Average Price or the Fair Market Value or Major Transaction Early Warrant Early Termination Price to a nationally recognized, independent, reputable investment bank selected by the Company and approved by the Required Holders, which investment bank shall not have provided services to either the Company, the Holder or any of their respective Affiliates during the five-year period preceding the date of its selection, or (ii) the disputed arithmetic calculation of the Exercise Price, Market Price or any Major Transaction Warrant Early Termination Price to the Company’s independent, outside accountant. The Company shall exercise commercially reasonable efforts to cause the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Required Holders of the results no later than five (5) Business Days from the time it receives the disputed determinations or calculations. Such investment bank’s or accountant’s determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error and the Company shall pay the fees and costs of such investment banker or accountant.

4. Transfer. Subject to the provisions of Section 8 of this Warrant, this Warrant may be transferred on the books of the Company, in whole or in part, in person or by attorney, upon surrender of this Warrant properly completed and endorsed. This Warrant shall be canceled upon such surrender and, as soon as practicable thereafter, the person to whom such transfer is made shall be entitled to receive a new Warrant or Warrants as to the portion of this Warrant transferred, and Holder shall be entitled to receive a new Warrant as to the portion hereof retained.

5. Adjustments Upon Certain Events.

(a) Participation. The Holder, as the holder of this Warrant, shall be entitled to receive from the Company such amount equal to the amount of dividends paid and distributions of any kind made to the holders of Series D Preferred Stock or Common Stock to the same extent as if the Holder had Exercised this Warrant into Shares (or, as applicable, had converted such Shares of Series D Preferred Stock into shares of Common Stock) and had held such Shares or conversion shares, as applicable, on the record date for such dividends and distributions. Payments under the preceding sentence shall be made concurrently with the dividend or distribution to the holders of Shares or Common Stock, as the case may be.

(b) Recapitalization or Reclassification. If the Company shall at any time effect a stock split, payment of stock dividend, recapitalization, reclassification or other similar transaction of such character that the Shares (whether shares of Series D Preferred Stock or Common Stock) shall be changed into or become exchangeable for a larger or smaller number of shares, then upon the effective date thereof, the number of Shares which Holder shall be entitled to purchase upon Exercise of this Warrant shall be increased or decreased, as the case may be, in direct proportion to the increase or decrease in the number of Shares by reason of such stock split, payment of stock dividend, recapitalization, reclassification or similar transaction, and the Exercise Price shall be, in the case of an increase in the number of shares, proportionally decreased and, in the case of decrease in the number of shares, proportionally increased. The Company shall give Holder the same notice it provides to holders of Shares of any transaction described in this Section 5(b).

(c) Rights Upon Major Transaction.

(i) Major Transaction. In the event that a Major Transaction (as defined below) occurs, then the Holder, at its option, may require the Company to redeem all or any portion of the Holder's outstanding Warrants in accordance with Section 5(c)(iii) below. In the event the Holder shall not have exercised any of its rights under the immediately preceding sentence within the applicable time periods set forth herein, then the Major Transaction shall be treated as an Assumption (as defined below) in accordance with Section 5(c)(ii) below. Notwithstanding anything herein to the contrary, the Holder may waive the above provisions of this Section 5(c) with respect to any Major Transaction and, without limitation, may elect to Exercise this Warrant prior to any Major Transaction.

Each of the following events shall constitute a "Major Transaction":

(A) a consolidation, merger, exchange of shares, recapitalization, reorganization, business combination or other similar event, (1) following which the holders of shares of voting stock of the Company immediately preceding such consolidation, merger, exchange, recapitalization, reorganization, combination or event either (a) no longer hold a majority of the shares of voting stock or (b) no longer have the ability to elect a majority of the board of directors of the Company, or (2) as a result of which Shares or shares of voting stock shall be changed into (or the holders of Shares or shares of Common Stock become entitled to receive) the same or a different number of shares of the same or another class or classes of stock or securities of another entity (collectively, a "Change of Control Transaction");

(B) the sale or transfer in one transaction or a series of related transactions of (i) all or substantially all of the assets of the Company to any Person or (ii) assets of the Company for a purchase price equal to more than 50% of the Applicable Value (as defined below);

(C) a third party purchase, tender or exchange offer made to the holders of outstanding Shares or shares of any class(es) or series capital stock, such that following such purchase, tender or exchange offer a Change of Control Transaction shall have occurred;

(D) the liquidation, bankruptcy, insolvency, dissolution or winding-up (or the occurrence of any analogous proceeding) affecting the Company;

(E) after an IPO Event the shares of Common Stock cease to be listed on any Eligible Market on which they are then listed or quoted and are not promptly re-listed or requoted on an Eligible Market;

(F) at any time after an IPO Event, the shares of Common Stock cease to be registered under Section 12 of the Exchange Act; or

(G) any "Event of Liquidation" occurs under the terms of the Charter;

provided, however, that, a Major Transaction or Change of Control shall not be deemed to have occurred solely as a result of the transfer of ownership of any shares of capital stock of the Company without the consent or agreement of the Company; provided that such proviso shall not apply to an event specified in subsection (G) of the definition of Major Transaction.

(ii) Assumption. The Company shall not enter into or be party to a Major Transaction that is to be treated as an Assumption pursuant to Section 5(c)(i), unless the Successor Entity assumes in writing all of the obligations of the Company under this Warrant, the Facility Agreement (and any notes issued thereunder) and provides registration rights comparable to those provided to the initial Holder under the Investor Rights Agreement, in accordance with the provisions of this Section (ii) (an "Assumption") pursuant to written agreements and instruments ("Assumption Agreements") necessary to effect such Assumption in form and substance reasonably satisfactory to the Required Holders and approved by the Required Holders prior to such Major Transaction (such consents and approvals not to be unreasonably withheld or delayed), including the delivery to each holder of Warrants in exchange for such Warrants a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to the Warrants (the "Successor Warrant"), including, without limitation, representing the appropriate number of shares of the Successor Entity having the exercise rights contained herein (including but not limited to the prevailing aggregate Exercise Price at such time and underlying number and type of securities, based on the price per share or conversion ratio to be received by the holders of Shares in the Major Transaction) and containing the other rights set forth herein, in each case, reasonably satisfactory to the Required Holders; provided, however, that the Facility Agreement and any notes issued thereunder shall not be required as Assumption Agreements in the event the Company has prepaid all outstanding indebtedness (and all accrued interest) owed under the Facility Agreement. The provisions of this Section shall apply similarly and equally to successive Major Transactions and shall be applied without regard to any limitations on the exercise of this Warrant including any applicable ownership limitations. The Company shall not effect a Major Transaction that is being treated as an Assumption unless the Successor Warrant and other Assumption Agreements are issued and delivered to the Holder in accordance with the provisions hereof concurrently with the consummation of such Major Transaction and such issuance and delivery shall be an express written condition precedent to consummation of such Major Transaction.

(iii) Notice; Major Transaction Early Termination Right. At least twenty (20) days prior to the consummation or occurrence of any Major Transaction, but, in any event, within five (5) Business Days following the first to occur of (x) the date of the public announcement of such Major Transaction if such announcement is made before 4:00 p.m., New York City time, (y) the day following the public announcement of such Major Transaction if such announcement is made on and after 4:00 p.m., New York City time, or (z) the date of execution of the definitive agreement with respect to a Major Transaction, if such agreement is executed prior to an IPO Event, the Company shall deliver written notice thereof via facsimile and overnight courier to the Holder (a "Major Transaction Notice"). At any time during the period beginning after the Holder's receipt of a Major Transaction Notice and ending five (5) Trading Days prior to the consummation of a Major Transaction (or portion thereof) described in Section 5(c)(i) (the "Early Termination Period"), the Holder may require the Company to redeem (an "Early Termination Upon Major Transaction") all or any portion of this Warrant (without regard to any ownership limitations hereunder) by delivering written notice thereof (a "Major Transaction Early Termination Notice") to the Company, which Major Transaction Early Termination Notice shall indicate the portion of the principal amount (the "Early Termination Principal Amount") of the Warrant (by reference to the number of shares issuable upon a Cash Exercise of the Principal Amount) that the Holder is electing to have redeemed. The portion of this Warrant subject to redemption pursuant to this Section 5(c)(iii) (the "Redeemable Shares"), shall be redeemed by the Company at a price (the "Major Transaction Warrant Early Termination Price") payable in cash equal to the "Black-Scholes Value" of the Early Termination Principal Amount determined by use of the Black-Scholes Option Pricing Model using the criteria set forth in Schedule 1 hereto (the "Black-Scholes Value").

(iv) Escrow; Payment of Major Transaction Warrant Early Termination Price. The Company shall not effect a Major Transaction that is being treated as an early termination unless it (1) either (a) shall first place into an escrow account with an independent escrow agent, at least three (3) Business Days prior to the closing date of the Major Transaction (the "Major Transaction Escrow Deadline"), an amount of cash equal to the Major Transaction Warrant Early Termination Price or (b) obtains the written agreement of the Successor Entity that the payment of the Major Transaction Warrant Early Termination Price shall be made to the Holder concurrently with the consummation of such Major Transaction and such issuance or payment shall be a condition precedent to consummation of such Major Transaction; (2) in the case of a Major Transaction (or applicable portion) that is being treated as an Assumption, shall first cause the Successor Entity to issue and deliver the Successor Warrant and any applicable Assumption Agreements to the Holder in accordance with subsection (ii) above, and (3) in the event of a Major Transaction prior to an IPO Event with a Private Successor Entity that is not a Cash-Out Major Transaction and that is being treated as a redemption hereunder, causes the Successor Entity to provide the Holder with appropriate and reasonable access to information (subject to execution by the Holder of a non-disclosure agreement in customary and reasonable form) to determine the fair market value of its shares as per Schedule 1 hereto and to submit any dispute with the Holder as to such determination to a dispute resolution similar to that provided in Section 3(b) hereof. The Company shall, concurrently upon closing of such Major Transaction, pay or instruct the escrow agent to pay the Major Transaction Warrant Early Termination Price to the Holder.

(v) Injunction. In the event that the Company attempts to consummate a Major Transaction without (1) either (a) placing the Major Transaction Warrant Early Termination Price in escrow in accordance with subsection (iii) above, as applicable, (b) paying the Major Transaction Warrant Early Termination Price to the Holder prior to consummation of such Major Transaction, or (c) obtaining the written agreement of the Successor Entity described in subsection (iii) above; (2) in the case of a Major Transaction (or applicable portion) that is being treated as an Assumption, causing the Successor Entity to issue and deliver the Successor Warrant and any applicable Assumption Agreements to the Holder and (3) in the case of a Major Transaction with a Private Successor Entity that is not a Cash-Out Major Transaction and that is being treated as a redemption, causing the Successor Entity to take the actions described in subsection (iii) above, the Holder shall have the right to apply for an injunction in any state or federal courts sitting in the City of New York, borough of Manhattan to prevent the closing of such Major Transaction until such applicable required action is completed, in full.

An early termination required by this Section 5(c) shall have priority to payments to holders of capital stock in connection with a Major Transaction and to the extent an early termination required by this Section 5(c)(iii) are deemed or determined by a court of competent jurisdiction to be prepayments of the Warrant by the Company, such early termination shall be deemed to be voluntary prepayments. Notwithstanding anything to the contrary in this Section 5, until the Major Transaction Early Termination Price is paid in full, this Warrant may be exercised, in whole or in part, by the Holder into Shares, or in the event the Exercise Date is after the consummation of the Major Transaction, shares of publicly traded common stock (or their equivalent) of the Successor Entity pursuant to Section 5(c). The parties hereto agree that in the event of the Company's early termination of any portion of the Warrant under this Section 5(c), the Holder's damages would be uncertain and difficult to estimate because of the parties' inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for the Holder. Accordingly, any premium due under this Section 5(c) is intended by the parties to be, and shall be deemed, a reasonable estimate of the Holder's actual loss of its investment opportunity and not as a penalty.

For purposes hereof:

"Applicable Value" means (i) at any time that the Company is subject to the reporting requirements under the Exchange Act, (A) the product of (x) the number of issued and outstanding shares of Common Stock on the date the Company delivers the Major Transaction Notice multiplied by (y) the per share closing price of the Common Stock on such date plus (B) the amount of the Company's debt as shown on the latest financial statements filed with the SEC (the "Current Financial Statements") plus (C) the aggregate liquidation preference of each class of the Company's preferred stock less (D) the amount of cash and cash equivalents of the Company as shown on the Current Financial Statements; and (ii) at any time that the Company is not subject to the reporting requirements under the Exchange Act, the book value of the Company's assets as shown on the most recent financial statements of the Company.

“Cash-Out Major Transaction” means a Major Transaction in which the consideration payable to holders of capital stock in connection with the Major Transaction (whether paid directly or in liquidation of the Company or as a distribution following such Major Transaction) consists solely of cash.

“Eligible Market” means the New York Stock Exchange, Inc., the NYSE Arca, the NASDAQ Capital Market, the NASDAQ Global Market, the NASDAQ Global Select Market or the NYSE Alternext U.S.

“IPO Event” means the date on which shares of the Company become registered under the Securities Act of 1933, as amended.

“Mixed Major Transaction” means a Major Transaction in which the consideration payable to the shareholders of the Company consists partially of cash and partially of securities of a Successor Entity.

“Parent Entity” of a Person means an entity that, directly or indirectly, controls the applicable Person and whose common stock or equivalent equity security is quoted or listed on an Eligible Market, or, if there is more than one such Person or Parent Entity, the Person or Parent Entity with the largest public market capitalization as of the date of consummation of a Major Transaction.

“Person” means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

“Private Successor Entity” means a Successor Entity that is not a Publicly Traded Successor Entity.

“Publicly Traded Successor Entity” means a Successor Entity that is a publicly traded corporation whose common stock is quoted on or listed for trading on an Eligible Market (as defined above).

“Qualified IPO” means the closing of the sale of shares of the Common Stock to the public at a price of at least $1.25 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act, with at least $25,000,000 of gross proceeds to the Company and a listing of the Common Stock on the Nasdaq Stock Market or the New York Stock Exchange.

“Successor Entity” means any Person purchasing the Company’s assets or capital stock, or any successor entity resulting from such Major Transaction, or if the Warrant is to be exercisable for shares of capital stock of its Parent Entity (as defined above), its Parent Entity.

(d) Exercise Price Adjusted. As used in this Warrant, the term “Exercise Price” shall mean the purchase price per share specified in Section 3(a) of this Warrant, until the occurrence of an event stated in this Section 5 or otherwise set forth in this Warrant, and thereafter shall mean said price as appropriately adjusted from time to time in accordance with the provisions of said subsection. No adjustment made pursuant to any provision of this Section 5 shall have the net effect of increasing the aggregate Exercise Price in relation to the split adjusted and distribution adjusted price of the Shares.

(e) Adjustments: Additional Shares, Securities or Assets. In the event that at any time, as a result of an adjustment made pursuant to this Section 5 or otherwise, Holder shall, upon Exercise of this Warrant, become entitled to receive shares and/or other securities or assets (other than Shares) then, wherever appropriate, all references herein to Shares shall be deemed to refer to and include such shares and/or other securities or assets; and thereafter the number of such shares and/or other securities or assets shall be subject to adjustment from time to time in a manner and upon terms as nearly equivalent as practicable to the provisions of this Section 5.

(f) Adjustment of Exercise Price upon Issuance of Common Stock, Options, Convertible Securities, Etc.

(i) If at any time after the Mandatory Conversion Time for so long as this Warrant is outstanding, the Company (x) issues or sells any Common Stock, Convertible Securities, warrants, or Options or (y) directly or indirectly effectively reduces the conversion, exercise or exchange price for any Convertible Securities or Options which are currently outstanding, at or to an effective Per Share Selling Price (as defined below) which is less than the greater of (I) the closing sale price per share of the Common Stock on the principal securities exchange, trading market or quotation system on which shares of Common Stock are then traded, listed or quoted on the Trading Day immediately preceding such issue or sale ("Fair Market Price"), or (II) the Exercise Price, then in each such case the Exercise Price in effect immediately prior to such issue or sale date, as applicable, shall be automatically reduced effective concurrently with such issue or sale to an amount determined by multiplying the Exercise Price then in effect by a fraction, (x) the numerator of which shall be the sum of (1) the number of shares of Common Stock outstanding immediately prior to such issue or sale, plus (2) the number of shares of Common Stock which the aggregate consideration received by the Company for such additional shares would purchase at such Fair Market Price or Exercise Price, as the case may be, and (y) the denominator of which shall be the number of shares of Common Stock of the Company outstanding immediately after such issue or sale. The foregoing provision shall not apply to any issuances or sales of Common Stock or Convertible Securities (i) pursuant to any Convertible Securities or Options currently outstanding on the date hereof in accordance with the terms of such Convertible Securities in effect on the date hereof provided that such securities have not been amended since the date hereof to directly or indirectly effectively reduce the conversion, exercise or exchange price for any Convertible Securities or Options which are currently outstanding, or (ii) any Common Stock issued or issuable upon exercise of any options to employees, officers, directors, consultants and advisors (and any individuals who have accepted an offer of employment), in each case in connection with any Approved Stock Plan (as defined below).

For the purposes of the foregoing adjustments, in the case of the issuance of any Convertible Securities or Options, the maximum number of shares of Common Stock issuable upon exercise, exchange or conversion of such Convertible Securities or Options shall be deemed to be outstanding, provided that no further adjustment shall be made upon the actual issuance of Common Stock upon exercise, exchange or conversion of such Convertible Securities or Options, and provided further that to the extent such Convertible Securities or Options expire or terminate unconverted or unexercised, then at such time the Exercise Price shall be readjusted as if such portion of such Convertible Securities or Options had not been issued.

For purposes of this Section 5(f), if an event occurs that triggers more than one of the above adjustment provisions, then only one adjustment shall be made and the calculation method which yields the greatest downward adjustment in the Exercise Price shall be used.

(ii) *Record Date*. If the Company takes a record of the holders of Shares for the purpose of entitling them (1) to receive a dividend or other distribution payable in shares of Common Stock, Options or in Convertible Securities or (2) to subscribe for or purchase shares of Common Stock, Options or Convertible Securities, then such record date will be deemed to be the date of the issue or sale of the Shares deemed to have been issued or sold upon the declaration of such dividend or the making of such other distribution or the date of the granting of such right of subscription or purchase, as the case may be.

(iii) *Certain Definitions*. For purposes of this Section 5(f), the following terms have the respective meanings set forth below:

"Approved Stock Plan" means any employee benefit plan which has been duly adopted by a majority of the non-employee members of the Board of Directors of the Company or a majority of the members of a committee of non-employee directors established for such purpose, pursuant to which the Company's securities may be issued to any employee, consultant, advisor, officer or director (or any individual who has accepted an offer of employment) for services provided to the Company, and in all cases, providing for an Exercise Price that is at or above the fair market value (as defined in such Approved Stock Plan).

"Convertible Securities" means any stock or securities (other than Options) directly or indirectly convertible into or exchangeable or exercisable for shares of Common Stock.

"Options" means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

"Per Share Selling Price" shall include the amount actually paid by third parties for each share of Common Stock in a sale or issuance by the Company. In the event a fee is paid by the Company in connection with such transaction directly or indirectly to such third party or its affiliates, any such fee shall be deducted from the selling price pro rata to all shares sold in the transaction to arrive at the Per Share Selling Price. A sale of shares of Common Stock shall include the sale or issuance of Convertible Securities or Options, and in such circumstances the Per Share Selling Price of the Common Stock covered thereby shall also include the exercise, exchange or conversion price thereof (in addition to the consideration received by the Company upon such sale or issuance less the fee amount as provided above). In case of any such security issued in a transaction in which the purchase price or the conversion, exchange or exercise price is directly or indirectly subject to adjustment or reset based on a future date, future trading prices of the Common Stock, specified or contingent events directly or indirectly related to the business of the Company or the market for the Common Stock, or otherwise (but excluding standard stock split anti-dilution provisions or weighted-average anti-dilution provisions similar to that set forth herein, provided that any actual reduction of such price under any such security pursuant to such weighted-average anti-dilution provision shall be included and cause an adjustment hereunder), the Per Share Selling Price shall be deemed to be the lowest conversion, exchange, exercise or reset price at which such securities are converted, exchanged, exercised or reset or might have been converted, exchanged, exercised or reset, or the lowest adjustment, as the case may be, over the life of such securities. If shares are issued for a consideration other than cash, the Per Share Selling Price shall be the fair value of such consideration as determined in good faith by independent certified public accountants mutually acceptable to the Company and the Holder. In the event the Company directly or indirectly effectively reduces the conversion, exercise or exchange price for any Convertible Securities or Options which are currently outstanding, then the Per Share Selling Price shall equal such effectively reduced conversion, exercise or exchange price.

(g) Notice of Adjustments. Whenever the Exercise Price is adjusted pursuant to the terms of this Warrant, the Company shall promptly mail to the Holder a notice (an "Exercise Price Adjustment Notice") setting forth the Exercise Price after such adjustment and setting forth a statement of the facts requiring such adjustment. The Company shall, upon the written request at any time of the Holder, furnish to such Holder a like Warrant setting forth (i) such adjustment or readjustment, (ii) the Exercise Price at the time in effect and (iii) the number of Shares and the amount, if any, of other securities or property which at the time would be received upon Exercise of the Warrant. For purposes of clarification, whether or not the Company provides an Exercise Price Adjustment Notice pursuant to this Section 5(f), upon the occurrence of any event that leads to an adjustment of the Exercise Price, the Holder would be entitled to receive a number of Exercise Shares based upon the new Exercise Price, as adjusted, for exercises occurring on or after the date of such adjustment, regardless of whether the Holder accurately refers to the adjusted Exercise Price in the Exercise Form.

(h) Failure of Qualified Public Offering to Occur. In the event that no Qualified Public Offering has occurred prior to the date that is thirty (30) days prior to the expiration of the Term, the Holder shall have the right, by prior written notice delivered via electronic mail, facsimile, regular mail or overnight delivery to the Company at least five (5) days prior to the expiration of the Term (the "Term Redemption Notice") to require the Company to redeem this Warrant, on or prior to the date of the expiration of the Term, for an amount in cash equal to the excess, if any, of (x) the Underlying Share Fair Market Value, over the (y) the aggregate Exercise Price of all Shares underlying this Warrant at such time. For purposes hereof, "Underlying Share Fair Market Value" means the Fair Market Value of the remaining Shares issuable upon a Cash Exercise of this Warrant as of the date of the Term Redemption Notice. Within five (5) Business Days of receipt of a Term Redemption Notice, the Company shall submit its calculation of "Underlying Share Fair Market Value" and supporting documentation, to the Holder. Any dispute shall be handled in accordance with the dispute resolution mechanism set forth in Section 3(b). Notwithstanding anything herein to the contrary, the provisions of this Section 5(g) shall survive the expiration of the Term of this Warrant.

(i) Adjustments for Diluting Issuances. The number of shares of Common Stock (or the number and type of other securities, as applicable) issuable upon conversion of the shares of Series D Preferred Stock for which this Warrant is exercisable, are subject to adjustment, from time to time, in the manner set forth in the Charter as if the shares of Series D Preferred Stock for which this Warrant is exercisable were issued and outstanding on and as of the date of any such required adjustment. The provisions set forth in the Charter relating to adjustments to the Common Stock (or the number and type of other securities) into which shares of Series D Preferred Stock are convertible in effect as of the date hereof may not be amended, modified or waived, without the prior written consent of the Required Holders unless such amendment, modification or waiver affects the rights associated with all shares of Series D Preferred Stock in the same manner. Nothing in this subsection (h) shall in any way derogate from any other rights of the Holder set forth herein.

6. Fractional Interests.

No fractional shares or scrip representing fractional shares shall be issuable upon the Exercise of this Warrant, but on Exercise of this Warrant, Holder may purchase only a whole number of Shares. If, on Exercise of this Warrant, Holder would be entitled to a fractional Share or a right to acquire a fractional Share, such fractional share shall be disregarded and the number of Shares issuable upon Exercise shall be the next higher whole number of shares.

7. Authorized Share Capital.

From and after the date hereof, the Company shall procure (including by obtaining all corporate authorizations for issuance of warrants and the underlying securities, the exclusion of pre-emptive rights as well as waivers of any transfer restrictions) that, at all times, its authorized share capital shall be sufficient for the Exercise of this Warrant and payment of the Exercise Price and for the conversion of all Shares issuable hereunder and payment of the exercise price applicable to such Shares. If at any time the amount of the authorized share capital of the Company is below the number of shares sufficient for the Exercise of this Warrant or the conversion of the Shares issuable hereunder (a "Share Authorization Failure") (based on the Exercise Price or conversion price, as the case may be, in effect from time to time), the Company will promptly take all corporate action necessary to increase the authorized share capital of the Company, including, without limitation, calling a special meeting of shareholders and/or any other relevant corporate body to amend the Charter increasing the authorized share capital of the sufficiently high to meet the Company's obligations under this Section 7. The Company covenants and agrees that upon the Exercise of this Warrant, all Shares issuable upon such Exercise shall be duly and validly issued, fully paid and nonassessable and not subject to preemptive rights, rights of first refusal or similar rights of any Person.

8. Restrictions on Transfer.

(a) Registration or Exemption Required. This Warrant has been issued in a transaction exempt from the registration requirements of the Securities Act by virtue of Regulation D and exempt from state registration or qualification under applicable state laws. None of the Warrant or the Exercise Shares may be pledged, transferred, sold or assigned except pursuant to an effective registration statement or an exemption from the registration requirements of the Securities Act and applicable state laws including, without limitation, a so-called "4(a)(1) and a half" transaction.

(b) Assignment. Subject to Section 8(a), the Holder may sell, transfer, assign, pledge, or otherwise dispose of this Warrant (a "Transfer"), in whole or in part. Holder shall deliver a written notice to Company, substantially in the form of the Assignment attached hereto as Exhibit B, indicating the Person or Persons to whom the Warrant shall be assigned and the respective number of warrants to be Transferred to each transferee. The Company shall effect the Transfer within three (3) Business Days of the satisfaction by a transferring Holder of all requirements of this Warrant for Transfer (the "Transfer Delivery Period"), and shall deliver to the assignee(s) designated by Holder a Warrant or Warrants of like tenor and terms for the appropriate number of shares. This Warrant and the rights evidenced hereby shall inure to the benefit of and be binding upon the successors and assigns of the Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant, and shall be enforceable by any such Holder. For avoidance of doubt, following an IPO Event, in the event Holder notifies the Company that such sale or transfer is a so called "4(a)(1) and half" transaction, the parties hereto agree that a legal opinion from outside counsel for the Holder delivered to counsel for the Company substantially in the form attached hereto as Exhibit C that may be relied upon by the Company shall be the only requirement to satisfy an exemption from registration under the Securities Act to effectuate such "4(a)(1) and half" transaction. Notwithstanding the foregoing, any Transfer of this Warrant, in whole or in part while the terms of any such Investor Agreement are applicable to the Holder in its capacity as holder of this Warrant, shall be subject to as a condition of such Transfer the transferee entering into and becoming party, to the same extent as the transferring Holder in its capacity as holder of this Warrant, to (i) the Investor Rights Agreement, (ii) the ROFR Agreement, and (iii) the Voting Agreement, as applicable.

9. Noncircumvention.

The Company hereby covenants and agrees that the Company will not, by amendment of its Charter, bylaws, shareholders agreement or through any reorganization, transfer of assets, consolidation, merger, demerger, scheme of arrangement, dissolution, issue or sale of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, and will at all times exercise best efforts and good faith to carry out all the provisions of this Warrant and take all action as may be reasonably required to protect the rights of the Holder. Without limiting the generality of the foregoing, the Company (i) shall not increase the par value or the rights or terms of any Shares or of the Common Stock without the prior consent of the Holder, and (ii) shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Shares upon the exercise of this Warrant.

10. Events of Failure; Definition of Black-Scholes Value.

(a) Definition.

The occurrence of each of the following shall be considered to be an "Event of Failure."

(i) a Delivery Failure occurs, where a "Delivery Failure" shall be deemed to have occurred if the Company fails to issue and deliver Exercise Shares to the Holder within any applicable Delivery Period;

(ii) a Legend Removal Failure occurs, where a "Legend Removal Failure" shall be deemed to have occurred if the Company fails to issue Exercise Shares without a restrictive legend pursuant to the requirements of Section 2, or fails to remove a restrictive legend pursuant to the requirements of Section 2 or fails to remove any IRA Legend at a time when such legend is not required pursuant to the Investor Agreements;

(iii) a Transfer Delivery Failure occurs, where a "Transfer Delivery Failure" shall be deemed to have occurred if the Company fails to deliver a Warrant pursuant to Sections 4 and 8 within any applicable Transfer Delivery Period; or

(iv) a "Registration Failure" occurs.

For purposes hereof, a "Registration Failure" shall have occurred if the Company shall have failed to comply with its obligations to the Holder under Section 2 of the Investor Rights Agreement.

(b) Failure Payments; Black-Scholes Determination. The Company understands that any Event of Failure (as defined above) could result in economic loss to the Holder. In the event that any Event of Failure occurs, as compensation to the Holder for such loss, the Company agrees (as liquidated damages and not as a penalty) to pay on a daily basis to the Holder an amount payable in cash ("Failure Payments") equal to the amount resulting from the quotient of (A) the amount resulting from the product of (i) eighteen percent (18%) per annum (or the maximum rate permitted by applicable law, whichever is less), multiplied by (ii) the Black-Scholes value (as determined below) of the remaining unexercised portion of this Warrant (without regard to any ownership limitations hereunder) on the date of such Event of Failure (as recalculated on the first Business Day of each month thereafter for as long as Failure Payments shall continue to accrue), where the result of such product is divided by (B) 365, and such amount shall accrue daily from the date of such Event of Failure until the Event of Failure is cured. For purposes of clarification, it is agreed and understood that Failure Payments shall continue to accrue following any Event of Default until the applicable Default Amount is paid in full.

The Company shall satisfy any Failure Payments under this Section pursuant to Section 10(c) below. Failure Payments are in addition to any Warrant Shares that the Holder is entitled to receive upon Exercise of this Warrant.

For purposes hereof, the "Black-Scholes" value of a Warrant shall be determined by use of the Black-Scholes Option Pricing Model using the criteria set forth on Schedule 1 hereto.

(c) Payment of Accrued Failure Payments. The Failure Payment for each Event of Failure shall be paid on or before the fifth (5th) Business Day of each month following a month in which Failure Payments accrued. Nothing herein shall limit the Holder's right to pursue actual damages (to the extent in excess of the Failure Payments) for the Company's Event of Failure, and the Holder shall have the right to pursue all remedies available at law or in equity (including a decree of specific performance and/or injunctive relief). If a particular Event of Failure results in an Event of Default pursuant to Section 11 hereof, then the Failure Payment, for that Event of Failure only, shall be considered to have been satisfied upon payment to the Holder of an amount equal to the greater of (i) the Failure Payment, or (ii) the Default Amount, payable in accordance with Section 11.

(d) Maximum Interest Rate. Nothing contained herein or in any document referred to herein or delivered in connection herewith shall be deemed to establish or require the payment of a rate of interest or other charges in excess of the maximum permitted by applicable law. In the event that the rate of interest or dividends required to be paid or other charges hereunder exceed the maximum permitted by such law, any payments in excess of such maximum shall be credited against amounts owed by the Company to the Holder and thus refunded to the Company.

11. Default.

(a) Events Of Default. Each of the following events shall be considered to be an "Event of Default" unless waived by the Holder:

(i) Failure To Deliver Shares. A Delivery Failure (as defined above) occurs and remains uncured for a period of more than twenty (20) days or at any time, the Company announces or states in writing that it will not honor its obligations to issue Shares to the Holder upon Exercise by the Holder of the Exercise rights of the Holder in accordance with the terms of this Warrant;

(ii) Legend Removal Failure. A Legend Removal Failure (as defined above) occurs and remains uncured for a period of twenty (20) days;

(iii) Transfer Delivery Failure. Transfer Delivery Failure (as defined above) occurs and remains uncured for a period of twenty (20) days;

(iv) Corporate Existence; Major Transaction. (A) The Company has failed to obtain the written agreement of the Successor Entity, or to cause the Successor Entity to take the actions required, pursuant to Section 5(c)(iv) or (B) with respect to a Major Transaction that is to be treated as an Assumption under the terms hereof, the Company has failed to meet the Assumption requirements of Section 5(c)(ii); and

(v) Failure to Effect Registration. With respect to all Registration Failures, a Registration Failure occurs and remains uncured for a period of more than thirty (30) days.

(b) Mandatory Early Termination.

(i) Mandatory Early Termination Amount. If any Events of Default shall occur then, unless waived by the Holder, upon the occurrence and during the continuation of any Event of Default, at the option of the Holder, such option exercisable through the delivery of written notice to the Company by such Holder (the "Default Notice"), the Company shall be obligated to terminate the outstanding amount of this Warrant and pay to the Holder (a "Mandatory Early Termination"), in full satisfaction of its obligations hereunder by delivery of a notice to such effect to the Holder within two (2) Business Days following receipt of the Default Notice, an amount payable in cash (the "Default Amount") equal to the greater of (1) the Black-Scholes value (as determined in accordance with Section 10(b)) of the remaining unexercised portion of this Warrant (without regard to any ownership limitations hereunder) on the date of such Default Notice and (2) the Black-Scholes value (also as determined in accordance with Section 10(b)) of the remaining unexercised portion of this Warrant (without regard to any ownership limitations hereunder) on the Trading Day immediately preceding the date that the Mandatory Early Termination Amount is paid to the Holder.

The Mandatory Early Termination Amount shall be payable within five (5) Business Days following the date of the applicable Default Notice.

(ii) Liquidated Damages. The parties hereto acknowledge and agree that the sums payable as Failure Payments or pursuant to a Mandatory Early Termination shall give rise to liquidated damages and not penalties. The parties further acknowledge that (i) the amount of loss or damages likely to be incurred by the Holder is incapable or is difficult to precisely estimate, (ii) the amounts specified bear a reasonable proportion and are not plainly or grossly

disproportionate to the probable loss likely to be incurred by the Holder, and (iii) the parties are sophisticated business parties and have been represented by sophisticated and able legal and financial counsel and negotiated this Agreement at arm's length.

The Default Amount, together with all other amounts payable hereunder, shall immediately become due and payable, all without demand, presentment or notice, all of which hereby are expressly waived, together with all costs, including, without limitation, legal fees and expenses, of collection, and the Holder shall be entitled to exercise all other rights and remedies available at law or in equity.

(c) Posting Of Bond. In the event that any Event of Default occurs hereunder, the Company may not raise as a legal defense (in any Lawsuit, as defined below, or otherwise) or justification to such Event of Default any claim that such Holder or anyone associated or affiliated with such Holder has been engaged in any violation of law, unless the Company has posted a surety bond (a "Surety Bond") for the benefit of such Holder in the amount of 130% of the aggregate Surety Bond Value (as defined below) of all of the Holder's Warrants (the "Bond Amount"), which Surety Bond shall remain in effect until the completion of litigation of the dispute and the proceeds of which shall be payable to such Holder to the extent Holder obtains judgment.

For purposes hereof, a "Lawsuit" shall mean any lawsuit, arbitration or other dispute resolution filed by either party herein pertaining to any of this Warrant, the Facility Agreement and the Registration Rights Agreement.

"Surety Bond Value," for the Warrants shall mean 130% of the of the Black-Scholes value of the remaining unexercised portion of this Warrant on the Trading Day immediately preceding the date that such bond goes into effect).

(d) Injunction And Posting Of Bond. In the event that the Event of Default referred to in subsection (c) above pertains to the Company's failure to deliver unlegended shares of Common Stock to the Holder pursuant to a Warrant Exercise, legend removal request, or otherwise, the Company may not refuse such unlegended share delivery based on any claim that such Holder or anyone associated or affiliated with such Holder has been engaged in any violation of law, unless an injunction from a court, on prior notice to Holder, restraining and or enjoining Exercise of all or part of said Warrant shall have been sought and obtained by the Company and the Company has posted a Surety Bond for the benefit of such Holder in the amount of the Bond Amount, which Surety Bond shall remain in effect until the completion of litigation of the dispute and the proceeds of which shall be payable to such Holder to the extent Holder obtains judgment.

(e) Remedies, Other Obligations, Breaches And Injunctive Relief. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant and the Facility Agreement, at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the right of the Holder to pursue actual damages for any failure by the Company to comply with the terms of this Warrant. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the holder of this Warrant shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

11. Holder's Early Terminations.

In the event that the Company does not deliver the Major Transaction Warrant Early Termination Price or the Default Amount, as the case may be, to the Holder within the time period or as otherwise required pursuant to the terms hereof, at any time thereafter the Holder shall have the option, upon notice to the Company, in lieu of early termination, to require the Company to promptly return to the Holder all or any portion of this Warrant that was submitted for early termination or exercise. Upon the Company's receipt of such notice, (x) the applicable early termination or exercise, as the case may be, shall be null and void with respect to such applicable portion of this Warrant and (y) the Company shall immediately return this Warrant, or issue a new Warrant to the Holder representing the portion of this Warrant that was submitted for early termination or exercise. The Holder's delivery of a notice voiding an early termination or exercise and exercise of its rights following such notice shall not affect the Company's obligations to make any payments of Failure Payments which have accrued prior to the date of such notice with respect to the Warrant subject to such notice.

12. Benefits of this Warrant.

Nothing in this Warrant shall be construed to confer upon any person other than the Company and Holder any legal or equitable right, remedy or claim under this Warrant and this Warrant shall be for the sole and exclusive benefit of the Company and Holder.

13. Governing Law.

All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the laws of the State of New York applicable to contracts made and to be performed in such State. All legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party or its respective affiliates, directors, officers, shareholders, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. The parties hereby waive all rights to a trial by jury.

14. Loss of Warrant.

Upon receipt by the Company of evidence of the loss, theft, destruction or mutilation of this Warrant, and (in the case of loss, theft or destruction) of indemnity or security or an affidavit of loss, theft or destruction, reasonably satisfactory to the Company, and upon surrender and cancellation of this Warrant, if mutilated, the Company shall execute and deliver a new Warrant of like tenor and date.

15. Notice or Demands.

Notices or demands pursuant to this Warrant to be given or made by Holder to or on the Company shall be sufficiently given or made if sent by mail, electronic mail or facsimile per the addresses or numbers, as the case may be, set forth in Section 2 hereof, until another address or number is designated in writing by the Company. Notices or demands pursuant to this Warrant to be given or made by the Company to or on Holder shall be sufficiently given or made if sent by certified or registered mail, return receipt requested, postage prepaid, and addressed, to the address of Holder set forth in the Company's records, until another address is designated in writing by Holder.

16. Amendment; Waiver.

The terms and provisions of this Warrant shall not be amended or waived except in a writing signed by the Company and the Holder, provided that the Company and the Required Holders may in writing amend the Warrants on behalf of all of the holders of Warrants.

IN WITNESS WHEREOF, the undersigned has executed this Warrant as of the 2nd day of June, 2014.

KEMPHARM, INC.

By: /s/ Travis S. Mickle
Name: Travis C. Mickle
Title: President and CEO

EXHIBIT A

EXERCISE FORM FOR WARRANT

TO: [ ]

CHECK THE APPLICABLE BOX:

☐ ***Cash Exercise or Cashless Exercise***

The undersigned hereby irrevocably exercises the attached warrant (the "Warrant") with respect to Shares of Kempharm, Inc., a Delaware corporation (the "Company"), and, if pursuant to a Cashless Exercise, herewith makes payment of the Exercise Price with respect to such shares in full, all in accordance with the conditions and provisions of said Warrant.

☐ [IF APPLICABLE: The undersigned hereby encloses $ as payment of the Exercise Price.]

☐ [IF APPLICABLE: The undersigned hereby agrees to cancel $ of principal outstanding under Notes of the Company held by the Holder.]

1. The undersigned requests that any stock certificates for such shares be issued free of any restrictive legend, if appropriate, and, if requested by the undersigned, a warrant representing any unexercised portion hereof be issued, pursuant to the Warrant in the name of the undersigned and delivered to the undersigned at the address set forth below.

2. Capitalized terms used but not otherwise defined in this Exercise Form shall have the meaning ascribed thereto in the Warrant.

Dated: _____

_____

Signature

_____

Print Name

_____

Address

NOTICE

The signature to the foregoing Exercise Form must correspond to the name as written upon the face of the attached Warrant in every particular, without alteration or enlargement or any change whatsoever.

EXHIBIT B

ASSIGNMENT

(To be executed by the registered holder
desiring to transfer the Warrant)

FOR VALUE RECEIVED, the undersigned holder of the attached warrant (the "Warrant") hereby sells, assigns and transfers unto the person or persons below named the right to purchase Shares (as defined in the Warrant) of Kempharm, Inc., a Delaware corporation, evidenced by the attached Warrant and does hereby irrevocably constitute and appoint attorney to transfer the said Warrant on the books of the Company, with full power of substitution in the premises.

Dated: _____

_____
Signature

Fill in for new registration of Warrant:

_____
Name

_____
Address

_____
Please print name and address of assignee
(including zip code number)

NOTICE

The signature to the foregoing Assignment must correspond to the name as written upon the face of the attached Warrant in every particular, without alteration or enlargement or any change whatsoever.

EXHIBIT C

FORM OF OPINION

, 20

[ ]

Re: [ ] (the "Company")

Dear Sir:

[ ] ("[ ]") intends to transfer Warrants (the "Warrants") of the Company to (" ") without registration under the Securities Act of 1933, as amended (the "Securities Act"). In connection therewith, we have examined and relied upon the truth of representations contained in an Investor Representation Letter attached hereto and have examined such other documents and issues of law as we have deemed relevant.

Based on and subject to the foregoing, we are of the opinion that the transfer of the Warrants by to may be effected without registration under the Securities Act, provided, however, that the Warrants to be transferred to contain a legend restricting its transferability pursuant to the Securities Act and that transfer of the Warrants is subject to a stop order.

The foregoing opinion is furnished only to and may not be used, circulated, quoted or otherwise referred to or relied upon by you for any purposes other than the purpose for which furnished or by any other person for any purpose, without our prior written consent.

Very truly yours,

Schedule 1

Black-Scholes Value

	Calculation Under Section 5(c)(iii)	**Calculation Under Section 10(b) or 11(b)**
Number of Shares	The number of Warrant Shares subject to such redemption.	The number of Warrant Shares subject to such redemption.
Remaining Term	If the Major Transaction is consummated prior to the IPO Event, the number of days from the earlier of (i) the date of execution of a definitive agreement with respect to such Major Transaction and (ii) the date of the Major Transaction Notice, until the last date on which the Warrant may be Exercised; if the Major Transaction is consummated after the IPO Event, the number of calendar days from the earlier of (x) date of public announcement of the Major Transaction and (y) the date of the Major Transaction Notice, until the last date on which the Warrant may be Exercised.	Number of calendar days from date of the Event of Failure until the last date on which the Warrant may be exercised.
Interest Rate	A risk-free interest rate corresponding to the US$ LIBOR/Swap rate for a period equal to the Remaining Term.	A risk-free interest rate corresponding to the US$ LIBOR/Swap rate for a period equal to the Remaining Term.
Cost to Borrow	Zero	Zero
Volatility	60%	60%
Stock Price	**Pre-IPO Event** (A) **Cash-Out Major Transaction; Cash Portion of Mixed Major Transaction** The greater of (i) the amount of cash payable or distributable per Applicable Share pursuant to the terms of the Charter in connection with such Major Transaction and (ii) the per share amount of cash consideration payable per Applicable Share in connection with such Major Transaction. "Applicable Share" means (1) following the Mandatory Conversion Time, a share of Common Stock and (2) prior to the Mandatory	The Volume Weighted Average Price of a shares of Common Stock on the date of such calculation (if following the Mandatory Conversion Time) and the Fair Market Value of an Applicable Share at the time of such calculation (if prior to the Mandatory Conversion Time).

Conversion Time, whichever of (x) and (y) would result in a greater calculation where (x) is a share of Series D Preferred Stock and (y) is a number of shares of Common Stock equal to the prevailing Per Share Underlying Common Amount.

"Mixed Major Transaction" means a Major Transaction in which the consideration payable to holders of Applicable Shares consists partially of cash and partially of securities of a Successor Entity (and potentially other non-cash property).

(B) **Non-Cash Major Transaction; Non-Cash Portion of Mixed Major Transaction**

The greater of (i) the Fair Market Value of the shares of such Successor Entity and the other property (other than cash) payable or distributable per Applicable Share pursuant to the terms of the Charter in connection with such Major Transaction and (ii) the sum of (A) the Fair Market Value of the property (excluding cash and shares of such Successor Entity) payable per Applicable Share in connection with such Major Transaction and (B) the number of shares of such Successor Entity issuable in such Major Transaction per Applicable Share multiplied by (x) in the case of publicly-traded shares of a Publicly Traded Successor Entity, the greater of (1) closing price per share of common stock of such Publicly Traded Successor Entity on the principal market on which such common stock is traded or listed (the "Successor Closing Market Price") as of the date immediately preceding the first public announcement of the Major Transaction, (2) the Successor Closing Market Price on the trading day immediately preceding the date on which a Major Transaction is consummated and (3) the first Successor Closing Market Price following the first public announcement of a Major Transaction or (y) in the case of shares of a non-publicly traded Successor Entity (or non-publicly-traded shares in a transaction with a publicly-traded Successor Entity), the Fair Market Value for each share of the Successor Entity issuable or distributable in such Major Transaction. In the event of a Major Transaction with a Private Successor Entity that is not a Cash-Out Major Transaction and that is being treated as a redemption hereunder, the Company shall cause the Successor Entity to provide the Holder with appropriate and reasonable access to information (subject to execution by the Holder

	of a non-disclosure agreement in customary and reasonable form) to determine the Fair Market Value of its shares as per this Schedule and to submit any dispute with the Holder as to such determination to a dispute resolution similar to that provided in Section 3(b) hereof. "Non-Cash Major Transaction" means a Major Transaction in which the consideration payable to holders of Applicable Shares in connection with such Major Transaction includes securities of a Successor Entity, but does not include cash. (C) **All Other Major Transactions (Pre-IPO Event)**. The Fair Market Value of a Warrant Share on the date of such calculation. **Post-IPO Event:** The greater of (1) the closing price of the Common Stock on NASDAQ, or, if that is not the principal trading market for the Common Stock, such principal market on which the Common Stock is traded or listed (the "Closing Market Price") on the trading day immediately preceding the date on which a Major Transaction is consummated, (2) the first Closing Market Price following the first public announcement of a Major Transaction, (3) the Closing Market Price as of the date immediately preceding the first public announcement of the Major Transaction or (4) the amount of any consideration payable per Applicable Share in such Major Transaction. In the event such calculation is made prior to the Mandatory Conversion Time and the Warrant is then Exercisable for shares of Series D Preferred Stock, such prices described in (1), (2) and (3) shall be multiplied by the Per Share Underlying Common Amount.	
Dividends	Zero.	Zero
Strike Price	The Exercise Price (as defined in Section 3(a)).	The Exercise Price (as defined in Section 3(a).

THE SECURITIES EVIDENCED BY THIS INSTRUMENT HAVE NEITHER BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), NOR THE SECURITIES LAWS OF ANY STATE, AND HAVE BEEN TAKEN FOR INVESTMENT PURPOSES ONLY, AND NOT WITH A VIEW TO THE DISTRIBUTION THEREOF. SUCH SECURITIES MAY NOT BE SOLD, PLEDGED OR TRANSFERRED (I) ABSENT COMPLIANCE WITH THE COMPANY'S ARTICLES OR CERTIFICATE OF INCORPORATION AND BYLAWS, AS EACH ARE AMENDED FROM TIME TO TIME, AND (II) UNLESS THERE IS AN EFFECTIVE REGISTRATION STATEMENT UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS COVERING SUCH SECURITIES OR THE COMPANY RECEIVES AN OPINION OF COUNSEL (WHICH MAY BE COUNSEL FOR THE COMPANY), REASONABLY SATISFACTORY IN FORM AND CONTENT TO THE COMPANY, STATING THAT SUCH SALE OR TRANSFER IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF THE ACT AND APPLICABLE STATE SECURITIES LAWS.

KEMPHARM, INC.

WARRANT TO PURCHASE

311,000 SHARES OF COMMON STOCK

For and in consideration of $1.00, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, KemPharm, Inc., an Iowa corporation (the "Company"), hereby grants to the Virginia Tech Foundation, Inc. (including any permitted subsequent holder hereof, "Holder"), the right to purchase from the Company at any time after the date hereof 311,000 shares of the Company's common stock, at a purchase price equal to $0.62 per Common Share (the "Purchase Price"), in accordance herewith and subject to the terms and conditions set forth herein. As used herein, the term "Common Shares" shall mean the Company's presently authorized common stock, and any stock into or for which such common stock may hereafter be converted or exchanged.

1. Exercise of Warrant.

To exercise this Warrant in whole or in part, the Holder shall deliver to the Company at its principal office: (a) a written notice, substantially in the form of the Subscription Form attached as Exhibit A hereto, of such Holder's election to exercise this Warrant, which notice shall specify the number of Common Shares to be purchased, (b) cash or a certified check payable to the Company in an amount equal to the aggregate purchase price of the number of Common Shares being purchased and (c) this Warrant. The Company shall as promptly as practicable, execute and deliver or cause to be executed and delivered, in accordance with such notice, a certificate or certificates representing the aggregate number of Common Shares specified in such notice. Such certificate or

certificates shall be deemed to have been issued and such holder or any other person so designated to be named therein shall be deemed for all purposes to have become a holder of record of such Common Shares as of the date such notice is received by the Company as aforesaid. If this Warrant shall have been exercised only in part, the Company shall, at the time of delivery of said certificate or certificates, deliver to such holder a new Warrant evidencing the rights of such holder to purchase the remaining Common Shares called for by this Warrant, which new Warrant shall in all other respects be identical to this Warrant, or, at the request of such holder, appropriate notation may be made on this Warrant and the same returned to such holder. The Company shall pay all expenses, taxes and other charges payable in connection with the preparation, issue and delivery of such Common Share certificates and new Warrant(s) (other than any applicable income taxes to be paid by Holder), except that, in case such share certificates or new Warrant(s) shall be registered in a name or names other than the name of the holder of this Warrant (to the extent permitted hereunder), funds sufficient to pay all transfer taxes that are payable upon the issuance of such certificate or certificates or new Warrant(s) shall be paid by the holder hereof at the time of delivering the notice of exercise mentioned above. The Holder's right to exercise this Warrant, in whole or in part, shall terminate in its entirety upon the tenth anniversary of the date of this Warrant.

All Common Shares issued upon the exercise of this Warrant shall be validly issued.

2. Transfer, Division and Combination.

The Company agrees to maintain at its principal office, books for the registration and transfer of the Warrant, and, subject to the provision of Sections 2 and 7 hereof, this Warrant and all rights hereunder are transferable, in whole, on such books at such office, upon surrender of this Warrant together with a written assignment of this Warrant (in form substantially similar to Exhibit B attached hereto) duly executed by the holder hereof or his agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees and in the denominations specified in such instrument of assignment, and this Warrant shall promptly be canceled. If and when this Warrant is assigned in blank, the Company may (but shall not be obliged to) treat the bearer hereof as the absolute owner of this Warrant for all purposes, and the Company shall not be affected by any notice to the contrary. A Warrant may be exercised by a new holder for the purchase of Common Shares without having a new Warrant issued.

This Warrant may be divided or combined with other Warrants upon presentation hereof at such principal office, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the holder hereof or his agent or attorney. Subject to compliance with the preceding paragraph and Section 7 hereof as to any transfer that may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice.

3. Notices.

In case the Company proposes

(a) to grant to the holders of its Common Shares as a class any rights or options, or

(b) to effect any capital reorganization or reclassification of the equity of the Company, or

(c) to consolidate with, or merge into, any other entity or to transfer its property as an entirety or substantially as an entirety, or

(d) to effect the liquidation, dissolution or winding up of the Company,

then the Company shall cause notice of any such intended action to be given to all holders of record of outstanding Warrants not less than 10 days before the date on which the transfer books of the Company shall close or a record be taken for such granting of rights or options, or the date when such capital reorganization, reclassification, consolidation, merger, transfer, liquidation, dissolution or winding up shall be effective, as the case may be.

Any notice or other document required or permitted to be given or delivered to holders of record of Warrants shall be mailed first-class postage prepaid to each such holder at the last address shown on the books of the Company maintained for the registry and transfer of the Warrants. Any notice or other document required or permitted to be given or delivered to holders of record of Common Shares issued pursuant to Warrants shall be mailed first-class postage prepaid to each such holder at such holder's address as the same appears on the records of the Company. Any notice or other document required or permitted to be given or delivered to the Company shall be mailed first-class postage prepaid to the principal office of the Company, or delivered to the office of one of the Company's executive officers at such address, or such other address within the United States of America as shall have been furnished by the Company to the holders of record of such Warrants and the holders of record of such Common Shares.

4. Limitation of Liability; Not a Shareholder.

No provision of this Warrant shall be construed as conferring upon the Holder, as such, any right whatsoever as a Shareholder of the Company, including without limitation the right to vote or to consent or to receive notice as a Shareholder in respect of meetings of Shareholders for the election of Directors of the Company or any other matter whatsoever as a Shareholder of the Company. No provision hereof, in the absence of affirmative action by the Holder hereof to purchase Common Shares, and no mere enumeration herein of the rights or privileges of the Holder hereof, shall give rise to any liability of such holder for the purchase price or as a Shareholder of the Company, whether such liability is asserted by the Company, creditors of the Company or others.

5. Loss, Destruction, etc. of Warrant.

Upon receipt of evidence satisfactory to the Company of the loss, theft, mutilation or destruction of any Warrant, and in the case of any such loss, theft or destruction upon delivery of a bond of indemnity in such form and amount as shall be reasonably satisfactory to the Company, or in the event of such mutilation upon surrender and cancellation of the Warrant, the Company will make and deliver a new Warrant, of like tenor, in lieu of such lost, stolen, destroyed or mutilated Warrant. Any Warrant issued under the provisions of this Section 5 in lieu of any Warrant alleged to be lost, destroyed or stolen, or of any mutilated Warrant, shall constitute an original contractual obligation on the part of the Company.

6. Adjustment upon Changes in Common Shares.

(a) If all or any portion of this Warrant shall be exercised subsequent to any split, dividend, recapitalization, combination of Shares of the Company, or other similar event, occurring after the date hereof, then the Holder exercising this Warrant shall receive, for the aggregate Purchase Price, the equity securities of any class or classes or other securities or property which such Holder would have received if this Warrant had been exercised immediately prior to such split, dividend, recapitalization, combination of Shares, or other similar event. Whenever there shall be an adjustment pursuant to this Section 6(a), the Company shall forthwith notify the Holder or Holders of this Warrant of such adjustment, setting forth in reasonable detail the event requiring the adjustment and the method by which such adjustment was calculated.

(b) If all or any portion of this Warrant shall be exercised subsequent to any merger, consolidation, exchange of Shares, separation, reorganization or liquidation of the Company, or other similar event, occurring after the date hereof, as a result of which the Common Shares shall be changed into the same or a different number of Shares of the same or another class or classes of securities of the Company or another entity, or the holders of Shares are entitled to receive cash or other property, then the Holder exercising this Warrant shall receive, for the aggregate Purchase Price, the aggregate number and class of shares, interests, cash or other property which such Holder would have received if this Warrant had been exercised immediately prior to such merger, consolidation, exchange, separation, reorganization or liquidation, or other similar event. Whenever there shall be an adjustment pursuant to this Section 6(b), the Company shall forthwith notify the Holder or Holders of this Warrant of such adjustment, setting forth in reasonable detail the event requiring the adjustment and the method by which such adjustment was calculated.

(c) The Company shall not amend its Articles of Incorporation or its By-Laws, as amended from time to time, or participate in any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, in each case for the purpose of avoiding or seeking to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Company, but shall at all times in good faith use its best efforts, and assist in carrying out all such action as may be reasonably necessary or appropriate in order to protect the rights of the Holder against dilution or other impairment.

7. Restrictions on Transfer; Shareholder Agreement; Legend. This Warrant may not be endorsed, assigned and/or transferred in whole or in part by the Holder (a) except in accordance with the restrictions on transfer contained in the Company's articles or certificate of incorporation and bylaws, as each are amended from time to time, and any Shareholder Agreement, if the Holder is a Shareholder of the Company at the time of such actual, proposed, or purported endorsement, assignment and/or transfer, or (b) without the prior express written consent of holders of at least two-thirds (2/3) of the Common Shares of the Company, if the Holder is not a Shareholder of the Company at the time of such actual, proposed, or purported endorsement, assignment and/or transfer. The transferability of the Common Shares issuable upon the exercise hereof is subject to the Company's articles or certificate of incorporation and bylaws, as each are amended from time to time, and any Shareholder Agreement. Each taker and holder of this Warrant, by taking or holding same, agrees to execute any documents reasonably requested by the Company to acknowledge and become a party to any Shareholder Agreement at such time as the Warrant is exercised in whole or in part. As used herein, "Shareholder Agreement" means any agreement among the Company and those persons holding all or a majority of the Company's Common Shares that concerns the ownership or transferability of Common Shares and rights and obligations related to such ownership. Each certificate for Common Shares issued upon the exercise of this Warrant and each certificate issued upon the direct or indirect transfer of any such shares shall be stamped or otherwise imprinted with each legend required by the Company's articles or certificate of incorporation and bylaws, as each are amended from time to time, and, unless duplicative of such legends, a legend in substantially the following form:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAWS AND NEITHER THE SECURITIES NOR ANY INTEREST THEREIN MAY BE OFFERED, SOLD, TRANSFERRED, PLEDGED OR OTHERWISE DISPOSED OF EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER SUCH ACT OR SUCH LAWS OR AN EXEMPTION FROM REGISTRATION UNDER SUCH ACT AND SUCH LAWS.

THE SECURITIES REPRESENTED HEREBY ARE SUBJECT TO THE PROVISIONS OF THE COMPANY'S ARTRICLES OR CERTIFICATE OF INCORPORATION AND BYLAWS, AS EACH ARE AMENDED FROM TIME TO TIME, AND ONE OR MORE SHAREHOLDER AGREEMENTS, AS AMENDED FROM TIME TO TIME, COPIES OF WHICH ARE ON FILE AT THE PRINCIPAL OFFICE OF THE COMPANY, WITH RESPECT TO VOTING AND TRANSFERS OF SECURITIES AND CERTAIN OBLIGATIONS RELATING TO OWNERSHIP OF SECURITIES, AND NO TRANSFER HEREOF MAY BE MADE EXCEPT IN ACCORDANCE WITH THE PROVISIONS OF SUCH AGREEMENT.

INFORMATION REGARDING THE DESIGNATIONS, RELATIVE RIGHTS, PREFERENCES AND LIMITATIONS APPLICABLE TO EACH CLASS OR SERIES OF SHARES OF THE COMPANY, THE VARIATIONS THEREIN

AND THE AUTHORITY OF THE BOARD OF DIRECTORS TO DETERMINE VARIATIONS FOR FUTURE CLASSES OR SERIES MAY BE OBTAINED AT NO COST BY WRITTEN REQUEST MADE BY THE HOLDER OF RECORD HEREOF TO THE SECRETARY OF THE COMPANY AT THE PRINCIPAL EXECUTIVE OFFICE OF THE COMPANY.

Notwithstanding the foregoing, the Holder may require the Company to issue a certificate for Common Shares without the first of the foregoing legends if either (i) such Common Shares have been registered for resale under the Act, or (ii) the Holder has delivered to the Company an opinion of legal counsel, which opinion shall be addressed to the Company and be reasonably satisfactory in form and substance to the Company's counsel, to the effect that such registration is not required with respect to such Common Shares.

8. Notices. All notices and other communications from the Company to the holder of this Warrant shall be mailed by first-class registered or certified mail, postage prepaid, to the address furnished to the Company in writing by the last holder of this Warrant who shall have furnished an address to the Company in writing.

9. Change; Waiver. Neither this Warrant nor any term hereof may be changed, waived, discharged or terminated orally but only by an instrument in writing signed by the party against which enforcement of the change, waiver, discharge or termination is sought.

10. Headings. The headings in this Warrant are for purposes of convenience of reference only and shall not be deemed to constitute a part hereof.

11. Law Governing. This Warrant shall be construed and enforced in accordance with and governed by the internal laws of the Commonwealth of Virginia without reference to the choice of law provisions of any jurisdiction.

12. Variation in Pronouns. All pronouns shall be deemed to refer to masculine, feminine, neuter, singular, or plural, as the identity of the person or persons may require.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the undersigned has executed this Warrant as of September 8, 2009.

KemPharm, Inc.

By: /s/ Travis Mickle
Travis Mickle, President, CEO

ACKNOWLEDGED AND AGREED:

HOLDER

Virginia Tech Foundation, Inc.

By: [No Counterpart Signature Obtained]

EXHIBIT A

SUBSCRIPTION FORM

(To be executed only upon exercise of Warrant)

The undersigned, the holder of the foregoing Warrant, hereby elects to exercise purchase rights represented by such Warrant for, and to purchase thereunder, Common Shares of KEMPHARM, INC. covered by such Warrant and herewith makes payment in full therefor of U.S. $ cash, and requests that certificates for such Common Shares (and any securities or property deliverable upon such exercise) be issued in the name of and delivered to _____ whose address is _____ _____ _____ _____.

The undersigned agrees that the undersigned is acquiring such Common Shares for investment and not with a view to distribution thereof and that the certificate or certificates representing such Common Shares may bear a legend substantially as follows:

"The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended, or any state securities laws and neither the securities nor any interest therein may be offered, sold, transferred, pledged or otherwise disposed of except pursuant to an effective registration statement under such act or such laws or an exemption from registration under such act and such laws."

"The securities represented hereby are subject to the provisions of the Company's articles or certificate of incorporation and bylaws, as each are amended from time to time, and one or more Shareholder Agreement, as amended from time to time, copies of which is on file at the principal office of the Company, with respect to voting and transfers of securities and certain obligations relating to ownership of securities, and no transfer hereof may be made except in accordance with the provisions of such agreement."

"Information regarding the designations, relative rights, preferences and limitations applicable to each class or series of shares of the Company, the variations therein, and the authority of the board of directors to determine variations for future classes or series may be obtained at no cost by written request made by the holder of record hereof to the secretary of the Company at the principal executive office of the Company."

Dated: Signature guaranteed: _____

EXHIBIT B

FORM OF ASSIGNMENT

FOR VALUE RECEIVED the undersigned registered owner of this Warrant hereby sells, assigns and transfers unto the Assignee named below all of the rights of the undersigned under the within Warrant, with respect to the number of Common Shares set forth below:

Name of Assignee	Address	No. of Shares

and does hereby irrevocably constitute and appoint Attorney to make such transfer on the books of KEMPHARM, INC., maintained for the purpose, with full power of substitution in the premises.

DATED: _____

_____
(Signature)

_____
(Witness)

EXHIBIT 10.7

KEMPHARM, INC.

STOCK PURCHASE WARRANT

Upon and subject to the terms, conditions and limitations stated in this Stock Purchase Warrant, consisting of 8 pages not including this cover page, KemPharm, Inc. hereby grants to the registered holder listed below, a warrant to purchase up to a maximum number of shares of Warrant Stock issued by KemPharm, Inc. as is set forth herein at the Exercise Price per share set forth herein.

WARRANT NO:	**W-D ____**
REGISTERED HOLDER:	_____
ISSUANCE DATE:	**June 2, 2014**
TOTAL NUMBER OF SHARES OF SERIES D PREFERRED STOCK:	_____

THIS WARRANT AND THE SECURITIES THAT MAY BE ISSUED UPON ITS EXERCISE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR THE SECURITIES LAWS OF ANY STATE AND MAY NOT BE SOLD, TRANSFERRED, OR PLEDGED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT UNDER SUCH ACT AND STATUTES UNLESS PRIOR TO ANY SALE, TRANSFER, OR PLEDGE, THE ISSUER RECEIVES AN OPINION OF COUNSEL, IN FORM AND SUBSTANCE REASONABLY SATISFACTORY TO IT, THAT REGISTRATION IS NOT REQUIRED UNDER SUCH ACT AND THE STATUTES AND RULES PROMULGATED THEREUNDER.

Warrants to Purchase _____ shares

W-D

STOCK PURCHASE WARRANT
OF
KEMPHARM, INC.

KemPharm, Inc., a Delaware corporation (the "Company"), hereby agrees that, for value received, is entitled, subject to the terms set forth herein, to purchase from the Company shares of Warrant Stock, subject to adjustment in the number of such shares and kind of capital stock as set forth herein, at any time or from time to time during the Exercise Period for the Exercise Price.

1. Definitions. The following terms when used in this Warrant will have the following meanings:

"Act" shall mean the United States Securities Act of 1933, as amended.

"Company Sale Transaction" shall mean the sale of all or substantially all of the Company's assets or capital stock in a single transaction or a series of related transactions, or the merger of the Company with another business entity in which the Company is not the surviving entity.

"Exercise Period" shall mean the period commencing as of June 2, 2014, which is the date of the closing of the Qualified Financing, and expiring in its entirety as of 5:00 p.m. C.S.T. on the earliest of (i) June 2, 2019, and (ii) the effective date of the closing of a Company Sale Transaction.

"Exercise Price" shall mean $0.78 per share of Warrant Stock, subject to adjustment pursuant to the terms hereof, including without limitation Section 6.

"Offering Memorandum" shall mean that certain Private Placement Confidential Offering Memorandum dated April 15, 2013, as amended and restated, pursuant to which the Company is offering the private placement of a maximum of 9,000 Units.

"Private Placement Offering" shall mean the Company's private placement offering of a maximum of 9,000 Units pursuant to the Offering Memorandum.

"Promissory Notes" shall mean the unsecured convertible promissory notes which comprise a portion of the Units being sold pursuant to the Offering Memorandum.

"Qualified Financing" shall mean the transactions contemplated by that certain Facility Agreement dated June 2, 2014, entered into by and between the Company and Deerfield Private Design Fund III, L.P., which is deemed to have closed upon June 2, 2014.

"Securities" are all or any part of the Warrant Stock purchased by the Holder or purchasable by the Holder upon the exercise of the Warrant.

"Units" shall mean the units issued by the Company pursuant to the Private Placement Offering which consist of convertible promissory note obligations of the Company and warrants issued by the Company to purchase shares of the Warrant Stock.

"Warrant" shall mean the Warrant evidenced by this document.

"Warrant Stock" shall mean the Company's Series D Convertible Preferred capital stock, subject to adjustment pursuant to the terms hereof, including, without limitation, Section 6.

2. Private Placement Offering. This Warrant comprises a portion of the Units purchased by the Holder from the Company pursuant to the Private Placement Offering.

3. Maximum Number of Shares of Warrant Stock. Subject to adjustment as provided in Section 6, the maximum number of shares of Warrant Stock which the Holder may purchase by exercise of and pursuant to this Warrant shall equal . The parties acknowledge and agree that the forgoing maximum number of shares has been determined based upon the total number of Units purchased by the Holder pursuant to the Offering and calculated in accordance with the following:

(a) If the Holder purchased at least six (6) Units but not more than twenty (20) Units under the Private Placement Offering, then the maximum number of shares of Warrant Stock shall equal the number of Units purchased by the Holder multiplied by "u", where "u" is equal to $50.00 divided by the Exercise Price.

(b) If the Holder purchased at least twenty-one (21) Units but not more than fifty (50) Units under the Private Placement Offering, then the maximum number of shares of Warrant Stock shall equal the number of Units purchased by the Holder multiplied by "x", where "x" is equal to $100.00 divided by the Exercise Price.

(c) If the Holder purchased at least fifty-one (51) Units but not more than 100 Units under the Private Placement Offering, then the maximum number of shares of Warrant Stock shall equal the number of Units purchased by the Holder multiplied by "y", where "y" is equal to $200.00 divided by the Exercise Price.

(d) If the Holder purchased more than 100 Units under the Private Placement Offering, then the maximum number of shares of Warrant Stock shall equal the number of Units purchased by the Holder multiplied by "z", where "z" is equal to $250.00 divided by the Exercise Price.

4. Exercise Price. The Exercise Price shall be equal to $0.78, subject to adjustment as provided in this Warrant, including without limitation, Section 6.

5. Method of Exercise/Net Exercise.

(a) Cash Exercise. The purchase rights exercisable under this Warrant shall be exercised by the Holder at any time during the Exercise Period, from time-to-time, by surrendering to the

Company at its principal office this Warrant accompanied by (i) the Stock Purchase Warrant Exercise Form attached hereto duly executed by such Holder, (ii) all other documents as are required pursuant to Section 5(d), and (iii) payment, in cash or by certified or cashier's check payable to the order of the Company, of the Exercise Price for the shares of Warrant Stock being purchased.

(b) Net Issue Election. During the Exercise Period, the Holder may elect to receive, without the payment by the Holder of any additional consideration, shares of Warrant Stock equal to the value of this Warrant or any lesser portion thereof, as determined in accordance with the following formula, by the surrender of this Warrant or such portion to the Company (the "Net Exercise"), with the net issue election initialed in the Stock Purchase Warrant Exercise Form annexed hereto duly executed, at the office of the Company, together with such other documents as are required pursuant to Section 5(d). Thereupon, the Company will issue to the Holder such number of fully paid and nonassessable shares of Warrant Stock of the Company as is computed using the following formula:

$$X=\frac{Y(A-B)}{A}$$

Where:

X= the number of shares of Warrant Stock to be issued to the Holder pursuant to this Section 2(b).

Y= the number of shares of Warrant Stock covered by this Warrant in respect of which the net issue election is made pursuant to this Section 2(b).

A= the fair market value of one share of Warrant Stock, determined as follows:

(i) If the Warrant Stock is listed on a recognized securities exchange in the United States, Canada or the UK, or admitted to unlisted trading privileges on such exchange, the fair market value shall be the last reported sale price of the Warrant Stock on such exchange or market on the last business day prior to the date of the exercise of this Warrant or if no sale is made on such day, the average closing bid and asked prices for such day on such exchange or market; or

(ii) If the Warrant Stock is not so listed or admitted to unlisted trading privileges, but is traded on a recognized trading system that provides closing bid and asked prices for securities, the fair market value shall be the average of the closing bid and asked prices for such day on such market; or

(iii) If the Warrant Stock is not so listed or admitted to unlisted trading privileges and bid and asked prices are not so reported, the fair market value shall be an amount determined in such reasonable manner as may be prescribed by the Board of Directors of the Company.

B= the Exercise Price in effect under this Warrant at the time the net issue election is made pursuant to this Section 5(b).

The Board will promptly respond in writing to an inquiry by the Holder as to the fair market value of one share of Warrant Stock.

(c) Termination of Exercise Rights. If, at the time the Exercise Period expires, the Holder has either not exercised this Warrant, or exercised this Warrant to purchase less than the maximum number of shares of Warrant Stock permitted hereunder, then upon the expiration of the Exercise Period the Holder's rights to purchase shares of Warrant Stock by further exercise of this Warrant shall terminate expire as of the end of the Exercise Period.

(d) Mechanics of Exercise. To exercise this Warrant, Holder shall deliver to the Company at its principal office (i) this Warrant, (ii) the Stock Purchase Warrant Exercise Form attached hereto, (iii) a subscription agreement relating to the Securities in a form reasonably requested by the Company; (iv) any other documents reasonably requested by Company for the lawful issuance of the Securities to Holder, and (v) in the case of a cash exercise of this Warrant, payment of the Exercise Price in accordance with Section 5(a).

(e) Effective Date of Issuance. The shares acquired upon exercise of this Warrant shall be deemed to be issued as of the close of business on the date on which the Company receives from the Holder all of the items required pursuant to Section 5(d). If less than all of the Warrant Stock purchasable under this Warrant is purchased, the Company will, upon such exercise, execute and deliver to the Holder a new warrant (dated the date thereof) evidencing the right to purchase the number of shares of the Warrant Stock not so purchased, or in the case of Net Exercise, the number of shares not included in "Y" above.

(f) Issuance of Certificate. As soon as practical after the exercise of this Warrant and payment of the purchase price, the Company will cause to be issued in the name of and delivered to the Holder a certificate or certificates representing the shares purchased, provided that if any law or regulation requires the Company to take any action with respect to the Warrant Stock to be purchased before the issuance thereof, then the date of delivery of such shares of Warrant Stock shall be extended for the period necessary to take such action. The Company may require that such certificate or certificates bear a legend substantially as follows:

"THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR THE SECURITIES LAWS OF ANY STATE AND MAY NOT BE SOLD, TRANSFERRED, OR PLEDGED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT UNDER SUCH ACT AND STATUTES UNLESS PRIOR TO ANY SALE, TRANSFER, OR PLEDGE, THE ISSUER RECEIVES AN OPINION OF COUNSEL, IN FORM AND SUBSTANCE SATISFACTORY TO IT, THAT REGISTRATION IS NOT REQUIRED UNDER SUCH ACT AND STATUTES AND THE RULES PROMULGATED THEREUNDER."

6. Adjustments to Number of Shares and Exercise Price.

(a) The number of shares for which this Warrant is exercisable shall be adjusted from time to time in the event the Company shall (i) pay a dividend or make a distribution on its Warrant Stock in shares of its capital stock, (ii) subdivide or reclassify its outstanding Warrant Stock into a greater number of shares, (iii) combine or reclassify the shares of its outstanding Warrant Stock into a smaller number of shares, or (iv) issue by reclassification of its Warrant Stock any shares of its capital stock. In each such case the number of shares for which this Warrant may be exercised in effect immediately prior thereto shall be proportionately adjusted so that the Holder of this Warrant shall be entitled to receive, the number and kind of shares of capital stock of the

Company which the Holder would have owned or have been entitled to receive after the happening of such event had the Holder held the number of shares of Warrant Stock which were purchasable upon the exercise of the Warrant immediately prior to the record date for such event (or if no record date is established in connection with such event, the effective date for such action).

(b) Upon each adjustment pursuant to Section 6(a) of the number and kind of shares of capital stock which may be purchased by exercise of this Warrant, the Exercise Price shall be appropriately adjusted(to the nearest Cent) such that the aggregate purchase price payable upon the Holder's purchase of the maximum number of shares of Warrant Stock by exercise of this Warrant after the adjustment pursuant to Section 6(a) remains the same as the aggregate purchase price payable upon the Holder's purchase of the maximum number of shares of Warrant Stock by exercise of this Warrant immediately prior to such adjustment.

(c)Adjustments pursuant to Sections 6(a) and 6(b) shall become effective immediately after the record date in the case of a stock dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or reclassification. Such adjustments shall be made successively whenever any event listed is Section 6(a) shall occur.

(d) Whenever the number of shares for which this Warrant is exercisable and the Exercise Price are adjusted, the Company shall give notice by mail to the Holder of this Warrant, setting forth the adjustment, the new number of shares and the new Exercise Price. Notwithstanding the foregoing notice provisions, failure by the Company to give such notice or a defect in such notice shall not affect the binding nature of such corporate action of the Company.

(e) No fractional shares of Warrant Stock are to be issued upon the exercise of the Warrant, but the Company shall pay a cash adjustment in respect of any fraction of a share which would otherwise be issuable in an amount equal to the same fraction of the market price per share of Warrant Stock on the day of exercise as determined in good faith by the Company.

7. Restriction on Transferability. Neither this Warrant nor the shares of Warrant Stock issuable upon exercise of this Warrant has been registered under the Act or any applicable state securities law. The Warrant is issued to the Holder on the condition that the Warrant and any Warrant Stock purchased upon exercise of the Warrant (excepting Warrant Stock for which a Notification under Regulation A or a registration statement has been filed and declared effective and for which such exercise may be effected pursuant to registration or an exemption from registration under any applicable state securities law) are or will be purchased for investment purposes and not with an intent to distribute the same. The Warrant and all shares of Warrant Stock acquired by Holder upon exercise of this Warrant shall be subject to the restrictions on sale, encumbrance and other disposition imposed by applicable state and federal laws or regulations regarding the registration or qualification of such acquisition of shares of Warrant Stock. The Holder, and the Holder's permitted assigns and successors, may not sell or otherwise transfer the Warrant or the shares of Warrant Stock acquired by exercise hereof unless the Company has received an opinion of counsel satisfactory in form and substance to the Company that such transaction will not violate the registration requirements of the Act or any applicable state law regulating the sale of securities.

8. Certain Events.

(a) In case of any reclassification, capital reorganization or other change of outstanding shares of Warrant Stock of the Company, or in case of any Company Sale Transaction, the Company shall provide notice of such contemplated action to the Holder no later than ten (10)

days after the effective date of the completion of such contemplated action, and the Holder shall have ten (10) days follow receipt of such notice to exercise this Warrant in whole or part with an effective date of exercise that is the same as the effective date of the completion of the contemplated transaction.

(b) The Company shall mail to the registered Holder of the Warrant, at his, her or its last post office address appearing on the books of the Company, not less than ten (10) days prior to the date on which (i) a record will be taken for the purpose of determining the holders of Warrant Stock entitled to dividends (other than cash dividends) or subscription rights. Notwithstanding such notice requirements, until exercise of the Warrant, no Holder shall be deemed a shareholder of the Company with respect to shares of Warrant Stock underlying this Warrant.

9. Noncircumvention; Reservation of Warrant Stock. The Company will not, by amendment of its certificate of incorporation or through reorganization, consolidation, merger, dissolution or sale of assets, or by any other voluntary act or deed, avoid or seek to avoid the observance or performance of the covenants, stipulations or conditions to be observed or performed hereunder by the Company, but will, at all times in good faith, assist, insofar as it is able, in the carrying out of all provisions hereof and in the taking of all other action which may be necessary in order to protect the rights of the Holder. A number of shares of Warrant Stock sufficient to provide for the exercise of the Warrant upon the basis herein set forth shall at all times be reserved by the Company for the exercise thereof.

10. Notices. All notices, demands and other communications shall be in writing and given via personal delivery, overnight, next-day or second-day delivery by a national delivery service, or mail through the U.S. postal service, proper postage prepaid to the following persons and addresses, or such other name and address of which notice is properly given from time to time:

To the Company: KemPharm, Inc. Attn: Christal M. Mickle, VP of Corporate Affairs 7 Hawkeye Drive, Suite 103 North Liberty, IA 52317	To the Holder: To the name and address set forth on the cover page to this Warrant.

Any such notice, demand or communication shall be deemed received by the addressee (i) upon actual receipt in the case of personal delivery or overnight, next-day or second-day delivery by a national delivery service, or (ii) in the case of notice mailed through the U.S. postal service, on the third business day following the deposit of such notice in the mail.

12. Binding Effect. This Warrant shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors and permitted assigns. If possible, this Warrant shall be construed along with and in addition to any other agreement which the Company and Holder may enter into, but any provisions in this Warrant which contradict any provision of any other such agreement shall take precedence and be binding over such other provision.

11. Governing Law; Jurisdiction. **This Warrant shall be governed by and construed and enforced in accordance with the laws of the State of Iowa. The litigation of any disputes shall take place in the appropriate federal or state court located in Johnson County, Iowa. The parties, to the extent they can legally do so, hereby consent to service of process, and to be sued in the State of Iowa and consent to the exclusive jurisdiction of the courts of the State of Iowa and the United States District Court for the Southern District of Iowa, as well as to the jurisdiction of all courts to which an appeal may be taken from such courts, for the purpose of any suit, action or other**

proceeding arising out of any of their obligations hereunder or with respect to the transactions contemplated hereby, and expressly waive any and all objections they may have to venue in such courts.

12. Amendment. Subject to the following sentence, no term or provision of this Warrant may be amended or waived except by a written instrument signed by the party against whom such amendment or waiver is being asserted. Notwithstanding the forgoing, the terms and provisions of this Warrant may be amended or waived without the consent of the Holder if such amendment or waiver receives the written consent of the Company and the holders of those Promissory Notes with unpaid principal balance amounts which cumulatively equal at least 51% of the aggregate unpaid principal amount due under all issued and outstanding Promissory Notes as of the date of such amendment or waiver; provided, however, that any such amendment or waiver must be applicable to each and every Warrant then issued and outstanding pursuant to the Private Placement Offering; and further provided that the Company shall deliver to the Holder a copy of such amendment or waiver and notice that it has received the written consent of the requisite number of Promissory Note holders.

13. Severability. If any one or more of the provisions of this Warrant are determined to be unenforceable, in whole or in part, for any reason, the remaining provisions shall remain fully operative.

14. Headings. The captions and headings of this Warrant are for convenience of reference only and shall not affect the interpretation of this Warrant.

[SIGNATURE PAGE FOLLOWS]

SIGNATURE PAGE TO STOCK PURCHASE WARRANT

IN WITNESS WHEREOF, this Warrant, which consists of 8 pages (including the exhibits and excluding the cover page), has been duly executed and issued by KemPharm, Inc., as of the date set forth above.

KEMPHARM, INC.

By: _____
Travis C. Mickle, Ph.D., President

STOCK PURCHASE WARRANT

EXERCISE FORM

(TO BE SIGNED ONLY UPON EXERCISE OF WARRANT)

TO KEMPHARM, INC.:

The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such warrant for, and to purchase thereunder * shares of the Warrant Stock of KemPharm, Inc., and [herewith makes payment of $ therefore] or [elects to purchase the shares by Net Exercise, as defined in the Warrant] (*strike inapplicable clause*), and requests that the certificates for such shares be issued in the name of , and be delivered to , whose address is and social security or tax identification number is .

Dated: _____, _____

_____
(Signature must conform in all respects to the name of holder as specified on the face of the warrant)

_____
(Address)

_____
(City - State - Zip)

Signature Guaranteed:

_____

* Insert here all or such portion of the number of shares called for on the face of the within Warrant with respect to which the holder desires to exercise the purchase right represented thereby, without adjustment for any other or additional stock, other securities, property or cash which may be deliverable on such exercise.

Schedule of Warrantholders to Form of Stock Purchase Warrant

Warrant No.	Name of Warrantholder	Total Number of Shares of Series D Preferred Stock / Maximum Number of Shares of Warrant Stock
W-1	Roger D. Brown & Donna L. Miller, JTWROS	3,205
W-2	Kirk D. Kirkegaard as Trustee of the Kirk Duane Kirkegaard Profit Sharing Plan	64,102
W-3	Douglas Truckenmiller & Linda Truckenmiller, JTWROS	13,076
W-4	Lynn Christensen	80,128
W-5	Laura J. R. Larsen as Trustee of the Laura J. R. Larsen Living Trust dated June 15, 2011	13,333
W-6	Laurence J. Clauson and Linda M. Clauson as Trustees of the Laurence J. Clauson and Linda M. Clauson Revocable Trust UAD June 1, 2006	576
W-7	Barney M. Bishop and Kathleen A. Bishop, JTWROS	13,076
W-8	Hank P. Grant & Janis W. Grant, JTWROS	3,205
W-9	David M. Fenton & Elizabeth Jane Fenton as Trustees of the David M. Fenton and Elizabeth Jane Fenton Revocable Trust UAD December 9, 2004	13,076
W-10	Charles R. Hansen	961
W-11	Matthew R. Plooster	384
W-12	James E. McCullough & Patricia A. McCullough, JTWROS	641
W-13	Nichols Holding Co., LLC	2,692
W-14	Bill G. Wells as Trustee of the Bill G. Wells Revocable Trust UAD August 20, 2012 and Anita J. Wells as Trustee of the Anita J. Wells Revocable Trust UAD August 20, 2012, TIC	13,076
W-15	Gary M. Wells as Trustee of the Gary M. Wells Trust dated December 21, 2001	118,205
W-16	William H. Eby	25,897
W-17	Michael Grasso and Wanda Grasso, JTWROS	1,217
W-18	Gerald F. Sawyer and Gladys F. Sawyer as Trustees for the Gerald F. and Gladys F. Sawyer Revocable Trust	384
W-19	Maude Limited Partnership	49,358
W-20	Brett E. Moller and Julie L. Moller, JTWROS	2,692
W-21	Raymond James and Associates, Inc. Custodian FBO Douglas D. Truckenmiller IRA	6,410
W-22	Terry J. Zazzi and Sallye A. Zazzi, Trustees of the Terry J. and Sallye A. Zazzi Living Trust u/t/d August 20, 1991	448
W-23	Benjamin J. Wells	25,897
W-24	Daniel J. Klein	2,692
W-25	Christopher Lauderback	13,076
W-26	Everett L. Grasty and Carla J. Grasty, JTWROS	2,692
W-27	Robert W. Dobbs and Suzanne L. Dobbs, Trustees of the Robert W. and Suzanne L. Dobbs Family Trust u/t/d October 12, 1993	961
W-28	Gary Muller and Jacquelyn Muller, JTWROS	2,692

W-29	Sara M. Lauderback	3,205
W-30	William R. Gravatt	833
W-31	Harold A. Hulme	641
W-32	Ronald J. Peterson and Judy M. Peterson, JTWROS	19,230
W-33	Barbara L. Nichols	2,692
W-34	Larry E. Martin and Sophia B. Martin, JTWROS	641
W-35	Sunwest Trust, Custodian FBO William Heffron IRA	2,692
W-36	Terry D. Wheeler and Angela Wheeler, Trustees of the Wheeler Family Revocable Trust U/A/D July 17, 2006, and any amendments thereto	2,692
W-37	Robert McAllister and Sheila McAllister, JTWROS	961
W-38	Douglas Truckenmiller & Linda Truckenmiller, JTWROS	16,025
W-39	Douglas Truckenmiller & Linda Truckenmiller, JTWROS	3,269
W-40	UBS Financial Services Inc., Custodian FBO Douglas D. Truckenmiller IRA	9,615
W-41	Scott D. Kleckner	14,102
W-42	Sunwest Trust, Custodian FBO Larry E. Martin Roth IRA	10,512
W-43	Larry E. Martin and Sophia B. Martin, JTWROS	1,923
W-44	Gary S. Chin, Trustee of The Gary S. Chin Family Trust U/A/D 10/28/2002	1,923
W-45	Sunwest Trust, Custodian FBO Maurice R. Russell Roth IRA	13,846
W-46	Dean P. Chang	961
W-47	Patrick W. Moran and Jill Moran, JTWROS	641
W-48	Andrew Daniel Wells Trustee of the Andrew Daniel Wells Living Trust	48,076
W-49	Andrew Daniel Wells Trustee of the Andrew Daniel Wells Living Trust	48,076
W-50	Scott T. Johnson	384
W-51	Arnold D. Kwikkel	448
W-52	Kristina J. O'Doherty and John J. O'Doherty, JTWROS	384
W-53	Shoab Sayeed	641
W-54	Jackie Fields and Melissa Kevorkian, JTWROS	769
W-55	Bill G. Wells as Trustee of the Bill G. Wells Revocable Trust UAD August 20, 2012 and Anita J. Wells as Trustee of the Anita J. Wells Revocable Trust UAD August 20, 2012, TIC	32,051
W-56	Travis C. Mickle and Christal M. M. Mickle, JTWROS	32,371
W-57	Benjamin J. Wells	64,102
W-58	Sunwest Trust, Custodian FBO Mark K. Donovan, IRA	19,230
W-59	Sunwest Trust, Custodian FBO Robert J. Coghlan, IRA	16,666
W-60	Sunwest Trust, Custodian FBO Robin L. Sassman, IRA	32,371
W-61	Matthew W. Squire	13,076

W-62	Randall D. Stoecker	13,076
W-63	Douglas Truckenmiller & Linda Truckenmiller, JTWROS	32,051
W-64	Lonny J. Olejniczak	3,205
W-65	Sunwest Trust, Custodian FBO Darrin Mleynek Roth IRA	705
W-66	Robin L. Sassman	3,205
W-67	Gary M. Wells as Trustee of the Gary M. Wells Trust dated December 21, 2001	64,102
W-68	Marlene A. Anderson and Wayne C. Anderson as Trustees of the Marlene A. Anderson and Wayne C. Anderson Trust U/A/D May 8, 2009	13,076
W-69	Sunwest Trust, Custodian FBO Robin L. Sassman, IRA	15,064
W-70	Bill G. Wells as Trustee of the Bill G. Wells Revocable Trust UAD August 20, 2012 and Anita J. Wells as Trustee of the Anita J. Wells Revocable Trust UAD August 20, 2012, TIC	3,269
W-71	Benjamin J. Wells	6,474
W-72	Gary M. Wells as Trustee of the Gary M. Wells Trust dated December 21, 2001	29,551
W-73	William H. Eby	6,474

LEASE — BUSINESS PROPERTY
(Board as Landlord)

THIS LEASE AGREEMENT, MADE AND ENTERED INTO THIS 6th day of September, 2013, by and between **KemPharm, Inc.** (hereinafter called Tenant) whose address for the purpose of this lease is 7 Hawkeye Drive, North Liberty, IA 52317 and the Board of Regents, State of Iowa for the Use and Benefit of the University of Iowa (hereinafter called Landlord) whose address for the purpose of this lease is The University Business Office, 2660 UCC, Iowa City, IA 52242

WITNESSETH THAT:

1. PREMISES AND TERM.

(a). Landlord, in consideration of the rents herein reserved and of the agreements and conditions herein contained, on the part of Tenant to be kept and performed, leases unto Tenant and Tenant hereby rents and leases from Landlord, according to the terms and provisions herein, the following described real estate, situated in Johnson County, Iowa, to Wit: approximately **7,804 square feet** of space located at **2656 Crosspark Road (Suite 100)**, at the University of Iowa, Research Park, with the improvements thereon and all rights, easements and appurtenances thereto belonging, which, more particularly, includes the space and premises as shown on "Exhibit A," attached hereto (the "Premises"), for a term **three (3) years**, beginning at midnight on the first day, which shall be on the **October 1, 2013**, and ending at midnight on the last day of the lease term, which shall be on **September 30, 2016**, upon the condition that Tenant pays rent therefore, and otherwise performs as in this lease provided. References in this Lese Agreement to the "Building" shall mean the building in which the Premises is located.

(b) RENEWAL. If this lease is subject to an option to renew the terms of the option are found in paragraph 25 below.

2. RENTAL. Tenant agrees to pay to Landlord as rental for said term, as follows: **$7,804 per month** ($12.00 per square foot) in advance, on the 1st day of each month from October 1, 2013 until September 30, 2016.

All sums shall be paid at the address of:
BioVentures Center
Suite E152
Coralville, IA 52241

3. POSSESSION. Tenant shall be entitled to possession on the first day of the term of this lease, and shall yield possession to Landlord at the time and date of the close of this lease term, except as herein otherwise expressly provided.

4. USE OF PREMISES. Tenant covenants and agrees during the term of this lease to use and to occupy the leased Premises, only for legal purposes.

5. QUIET ENJOYMENT. Landlord covenants that its estate in said Premises is undivided and that Tenant on paying the rent herein reserved and performing all the agreements by Tenant to be performed as provided in this lease shall and may peaceably.

Landlord shall have the right to mortgage all of its right, title, interest in said Premises at any time without notice, subject to this lease.

6. CARE AND MAINTENANCE OF PREMISES. (a) Tenant takes said Premises in its present condition except for such repairs and alterations as may be expressly herein provided.

(b) LANDLORD'S DUTY OF CARE AND MAINTENANCE. Landlord will keep in good repair the roof, structural part of the floor, walls and other structural parts of the Building, the exterior façade of the Building, and the sidewalks, parking lots, landscaping and exterior lighting appurtenant to the Building.

(c) TENANTS DUTY OF CARE AND MAINTENANCE. Tenant shall, after taking possession of said Premises and until the termination of this lease and the actual removal from the Premises, at its own expense, care for and maintain said Premises in a reasonably safe and serviceable condition, except as otherwise provided herein, including, without limitation section 6(b) hereof. Tenant will furnish its own interior decorating with written approval of Landlord, which approval shall not be unreasonably withheld. Tenant will not permit or allow said Premises to be damaged or depreciated in value by any act of negligence of Tenant, its agents or employees.

Tenant agrees to keep faucets closed so as to prevent waste of water and flooding of Premises and to promptly take care of any leakage or stoppage in any of the water, gas or waste pipes. Tenant agrees to maintain adequate heat to prevent freezing of pipes, if and only if the other terms of this lease fix responsibility for heating upon Tenant. Tenant shall make no structural alterations or improvements without the written approval of Landlord, which approval shall not be unreasonably withheld.

Tenant is responsible for securing all windows and doors within and on the Premises and shall exert diligence in keeping the Premises' entrances and openings locked after normal business hours.

Tenant will make no unlawful use of said Premises and agrees to comply with all applicable valid regulations of the Board of Health, any applicable City Ordinances, the laws of the State of Iowa and the Federal government, but this provision shall not be construed as creating any duty by Tenant to members of the general public.

7. UTILITIES AND SERVICES. Tenant, during the term of this lease, shall pay all charges for use of telephone, HVAC, electricity, gas, water and sewer and other utilities and services, including janitorial cleaning, which may be used in or upon the Premises, except as provided below:

(a) Trash Removal shall be furnished at the expense of Landlord, Tenant's pro-rata share of which will be billed to Tenant by Landlord on a monthly basis. As used in this lease, Tenant's pro rata share shall equal one-twelfth ($1/12^{th}$).

(b) Lawn Care and Snow Removal shall be furnished at the expense of Landlord, Tenant's pro-rata share of which will be billed to Tenant by Landlord on a monthly basis

(c) Tenant's pro-rata share of the annualized real estate tax assessment will be billed to Tenant by Landlord on a monthly basis.

(d) Tenant's pro-rata share of the annualized ground lease expense shall be billed to Tenant by Landlord on a monthly basis.

8. (a) SURRENDER OF PREMISES AT THE END OF TERM - REMOVAL OF FIXTURES. Tenant agrees that upon the termination of this lease, it will surrender, yield up and deliver the leased Premises in good and clean condition, except the effects of ordinary wear and tear and depreciation arising from lapse of time, or damage without fault or liability of Tenant.

(b) Tenant may, at the expiration of the term of this lease, or renewal or renewals thereof or at a reasonable time thereafter, if Tenant is not in default hereunder, remove any fixtures or equipment which said Tenant has installed in the leased Premises, providing said Tenant repairs any and all damages caused by removal.

(c) HOLDING OVER. Continued possession, beyond the expiration date of the term of this lease, by Tenant, coupled with the receipt of the specified rental by Landlord (and absent a written agreement by both parties for an extension of this lease, or for a new lease) shall constitute a month to month extension of this lease.

9. ASSIGNMENT AND SUBLETTING. Any assignment of this lease or subletting of the Premises or any part thereof is prohibited without Landlord's written permission. Such written permission shall not be unreasonably withheld.

10. LANDLORD'S RIGHT OF ACCESS. After giving reasonable notice, Landlord or its authorized representative may enter the leased Premises at any reasonable time for the purpose of inspecting the leased Premises or for the performance of Landlord's duties under the lease; provided, however, that except in the case of an emergency, such prior notice shall be given at least two (2) business days before the date on which Landlord desires such entry. Tenant shall have the right to accompany Landlord or its authorized representative during any entry on the Premises, but the failure of Tenant to provide someone to accompany Landlord shall not preclude Landlord or its authorized representative from entering the Premises. Notwithstanding the forgoing, Landlord acknowledges that the Premises shall contain proprietary information of Tenant which is not in the public domain, and Landlord and its agents and representatives shall not use or disclose without Tenant's prior written consent any of Tenant's proprietary information obtained by Landlord or its representatives during the course of any entry by Landlord or its authorized representatives onto the Premises; provided, however, that Landlord may disclose such proprietary information to the limited extent that Landlord is required to make such disclosure pursuant to any governmental order, law or other valid legal process and, prior to making such disclosure, Landlord provides Tenant with prompt notice of such requirement so that Tenant may object to such disclosure or seek a protective order or other appropriate remedy.

11. RULES. Tenant agrees to observe all of Landlord's written operating policies, including but not limited to rules, procedures, and traffic regulations located at the University of Iowa. The online "*Operations Manual*" can be found at: http://www.uiowa.edui/~our/opmanual/).

12. TAXES.

(a) REAL ESTATE TAXES. It is understood that Tenant is responsible for real estate taxes as provided in section 7(c) of this lease agreement.

(b) PERSONAL PROPERTY TAXES. Tenant agrees to timely pay all taxes, assessments or other public charges levied or assessed by lawful authority (but reasonably preserving Tenant's rights of appeal) against its personal property on the Premises, during the term of this lease.

13. INSURANCE.

(a) Landlord and Tenant will each keep its respective property interests in the Premises and its liability in regard thereto, and the personal property on the Premises, reasonably insured against hazards and casualties; that is, fire and those items usually covered by extended coverage. Both parties recognize that Landlord, as any agency of the State of Iowa, is self-insured.

(b) Tenant will not do or omit the doing of any act which would vitiate any insurance, or increase the insurance rates in force upon the real estate improvements on the Premises.

(c) In the event of damage to buildings, or improvements by any natural or manmade disaster, Tenant shall notify Landlord by telephone or in writing within 24 hours and provide written documentation within 7 days.

(d) Release of Recovery Rights. Each party hereby releases the other from claims for recovery for any loss or damage to any property owned by either party which is insured under valid and collective insurance policies to the extent of any recovery collectible under such insurance. It is further agreed that waiver shall apply only when permitted by the applicable policy of insurance.

(e) Tenant shall carry the following types and minimum coverage of insurance: (1) Worker's Compensation insurance (if applicable); (2) Comprehensive General Liability with respect to the Tenant's use and occupancy of the Premises with limit of not less than three (3) million for bodily injury liability for each occurrence; (3) Automobile Liability Insurance on all owned, non-owned, hired or leased automotive equipment in conjunction with operations, in amounts of not less than one (1) million for bodily injury liability and one (1) million for property damage liability. As evidence to the above, Tenant shall submit to Landlord certificates of insurance on an annual basis. Both parties recognize that the Board of Regents, as any agency of the State of Iowa, is self-insured.

14. LIABILITY. Tenant agrees to indemnify, defend and hold harmless Landlord against any liability, and/or pay for any and all damages, losses, or expenses incurred by Landlord in connection with the leased Premises, beyond that covered by insurance, due to Tenant's negligence or failure to perform the terms of the lease, including the expenses of enforcing the lease.

15. DESTRUCTION OF LEASED PREMISES.

(a) PARTIAL DESTRUCTION. In the event of a partial destruction or damage of the leased Premises, which is a business interference, that is, which prevents the conducting of a

normal business operation and which damage is reasonably repairable within sixty (60) days of its occurrence, this lease shall not terminate but the rent for the leased Premises shall abate during the time of such business interference. In the event of partial destruction, Landlord shall repair such damages within sixty (60) days of its occurrence unless prevented from so doing by acts of God, the elements, the public enemy, strikes, riots, insurrection, government regulations, city ordinances, labor, material or transportation shortages, or other causes beyond Landlord's reasonable control.

(b) ZONING. Should the zoning ordinance of the city or municipality in which this property is located make it impossible for Landlord, using diligent and timely effort to obtain necessary permits and to repair and/or rebuild so that Tenant is not able to conduct its business on these Premises, then such partial destruction shall be treated as a total destruction as in the next paragraph provided.

(c) TOTAL DESTRUCTION OF BUSINESS USE. In the event of a destruction or damage of the leased Premises including the parking area (if a parking area is a part of the subject matter of this lease) so that Tenant is not able to conduct its business on the Premises and the damage cannot be repaired within sixty (60) days, this lease may be terminated at the option of either Landlord or Tenant. Such termination in such event shall be affected by written notice of one party to the other, within twenty (20) days after such destruction. Tenant shall surrender possession within ten (10) days after such notice issues, and each party shall be released from all future obligations hereunder, Tenant paying rent pro rate only to the date of such destruction. In the event of such termination of this lease, Landlord at its option, may rebuild or not, according to its own wishes and needs.

16. CONDEMNATION - DISPOSITION OF AWARDS. Should the whole or any part of the demised Premises be condemned or taken by a competent authority for any public or quasi-public use or purpose, each party shall be entitled to retain, as its own property, any award payable to it. Or in the event that a single entire award is made on account of the condemnation, each party will then be entitled to take such proportion of said award as may be fair and reasonable.

17. TERMINATION OF LEASE. This lease shall terminate upon expiration of the demised term; or if this lease expressly and in writing provides for any option or options, and if any such option is exercised by Tenant, then this lease will terminate at the expiration of the option term or terms.

18. SIGNS.

(a) Tenant shall have the right and privilege of attaching, affixing, painting or exhibiting signs on the leased Premises, provided only that such signs shall comply with all provisions and covenants of the University of Iowa Research Park guidelines, and in addition,

(1) that any and all signs shall comply with the ordinances of the city or municipality in which the property is located and the laws of the State of Iowa;

(2) such signs shall not change the structure of the building;

(3) such signs if and when taken down shall not damage the building;

(4) such signs shall be subject to the written approval of Landlord, which approval shall not be unreasonably withheld.

(b) Landlord during the last ninety (90) days of this lease, or extension, shall have the right to maintain in the windows or on the building or on the Premises either or both a “For Rent” or “For Sale” sign and Tenant will permit, at such time, Landlord’s agents, prospective tenants or buyers to enter and examine the Premises.

19. RIGHTS CUMULATIVE. The various rights, powers, options, elections and remedies of either party, provided in this lease, shall be construed as cumulative and no one of them as exclusive of the others, or exclusive of any rights, remedies or priorities allowed either party by law, and shall in no way affect or impair the right of either party to pursue any other equitable or legal remedy to which either party may be entitled as long as any default remains in any way unremedied, unsatisfied or undischarged.

20. NOTICE AND DEMANDS. Notices as provided for in this lease shall be given to the respective parties hereto at the respective addresses designated on page one of this lease unless either party notifies the other, in writing, or a different address. Without prejudice to any other method of notifying a party in writing or making a demand or other communication, such message shall be considered given under the terms of this lease when sent, addressed as above designated, postage prepaid, by registered mail or certified mail, return receipt requested, by the United States mail and so deposited in a United States mail box.

21. PROVISIONS TO BIND AND BENEFIT SUCCESSORS, ASSIGNS, ETC. Each and every covenant and agreement herein contained shall extend to and be binding upon the respective successors, heirs, administrators, executors and assigns of the parties hereto; except that if any part of this lease is held in joint tenancy, the successor in interest shall be the surviving joint tenant.

22. CHANGES TO BE IN WRITING. None of the covenants, provisions, terms or conditions of this lease to be kept or performed by Landlord or Tenant shall be in any manner modified, waived or abandoned, except by a written instrument duly signed by the parties and delivered to Landlord and Tenant.

23. CONSTRUCTION. Words and phrases herein, including acknowledgement hereof, shall be construed as in the singular or plural number, and as masculine, feminine or neuter gender according to the context.

24. HANDICAPPED ACCESSIBILITY. Landlord shall maintain the Premises in compliance with all applicable State and Federal laws and regulations concerning accessibility by the handicapped.

25. RENEWAL OPTION(S). Tenant shall have the right to an additional three year renewal period, each such period shall be under the same terms and conditions of this lease, except reasonable rental rate adjustments to be negotiated by the parties at the time of Tenant’s election to renew. No rate increase may exceed the CPI inflationary adjustment rate for commercial property in the Midwest region. Tenant shall provide landlord ninety (90) days notice of Tenant’s intent to renew its lease.

26. LEASEHOLD IMPROVEMENTS. Prior to taking occupancy of the Premises, Tenant seeks to construct improvements to the Premises listed in Exhibit B and Exhibit C .Both

Exhibits are attached to and incorporated into this Lease agreement. Tenant shall pay their own respective costs for the improvements associated with Exhibit B and shall hold Landlord harmless from all claims of contractors or subcontractors. Tenant will also pay the costs associated with Exhibit C; however, upon submission by Tenant to Landlord of evidence of payment of contractor or subcontractor invoices pertaining to said construction improvements in Exhibit C, Landlord will reimburse Tenant for such payments in an amount not to exceed the contractor's estimate of $36,500.00; further provided that if the actual costs for the construction improvements in Exhibit C exceed the contractor's estimate of $36,500.00, Landlord shall provide reimbursement for such excess costs upon mutual agreement by Landlord and Tenant. Landlord shall reimburse Tenant for such costs and expenses within thirty (30) days from Landlord's receipt of the invoices of such expenses. If reimbursement is not received within (60) days from Landlord's receipt of the invoices of such expenses, Tenant's monthly rent of $7804.00 for the next five (5) months will be used as reimbursement not to exceed the actual cost of construction.

[*Signature Page Follows*]

SIGNATURE PAGE TO
LEASE – BUSINESS PROPERTY

IN WITNESS THEREOF, the parties hereto have duly executed this lease the day and year first above written.

LANDLORD
BOARD OF REGENTS, STATE OF IOWA

9/11/13 /s/ David Kieft

(Date) David Kieft, University of Iosa Business Manager

TENANT
KemPharm, Inc.

9/6/2013 /s/ Christal M. M. Mickle

(Date)

Exhibit A

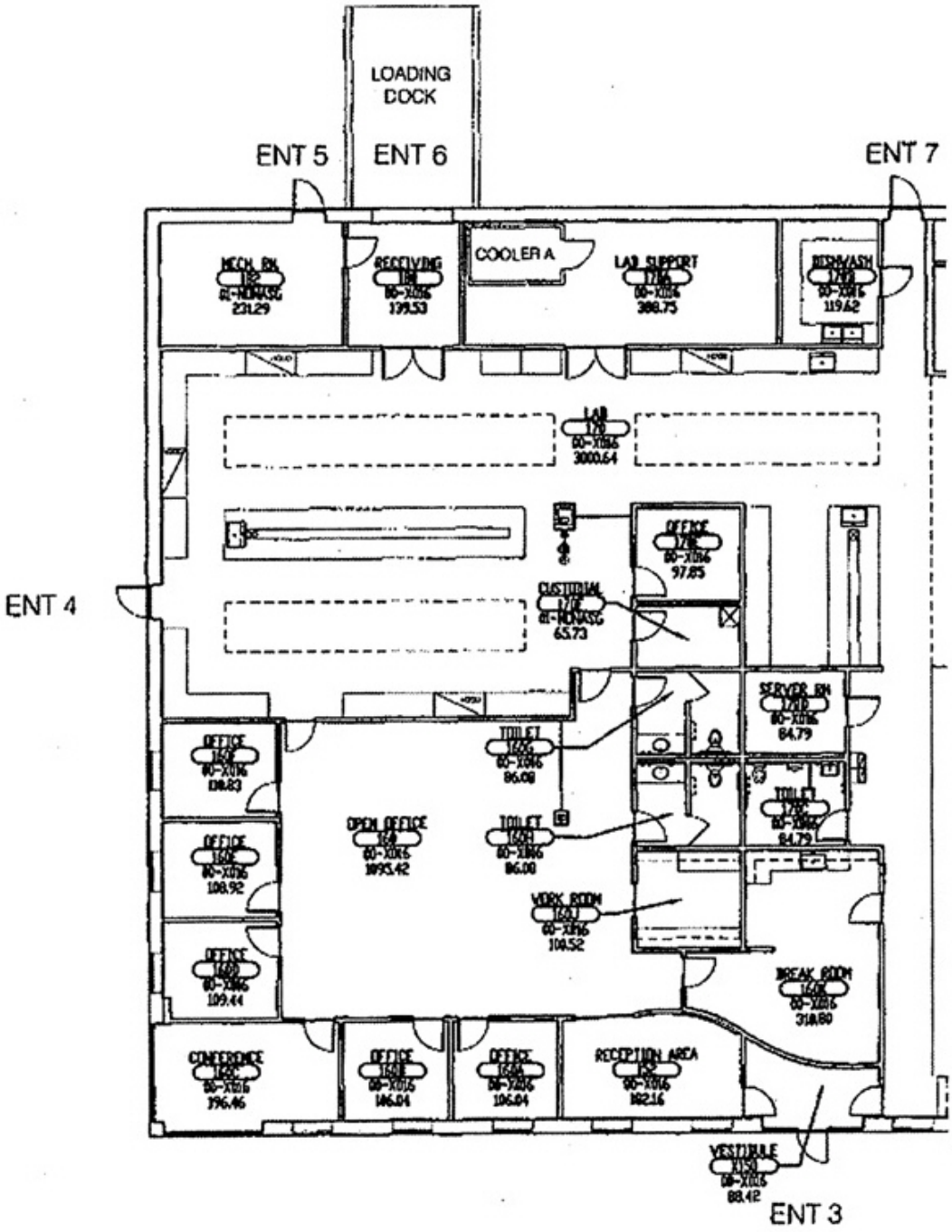
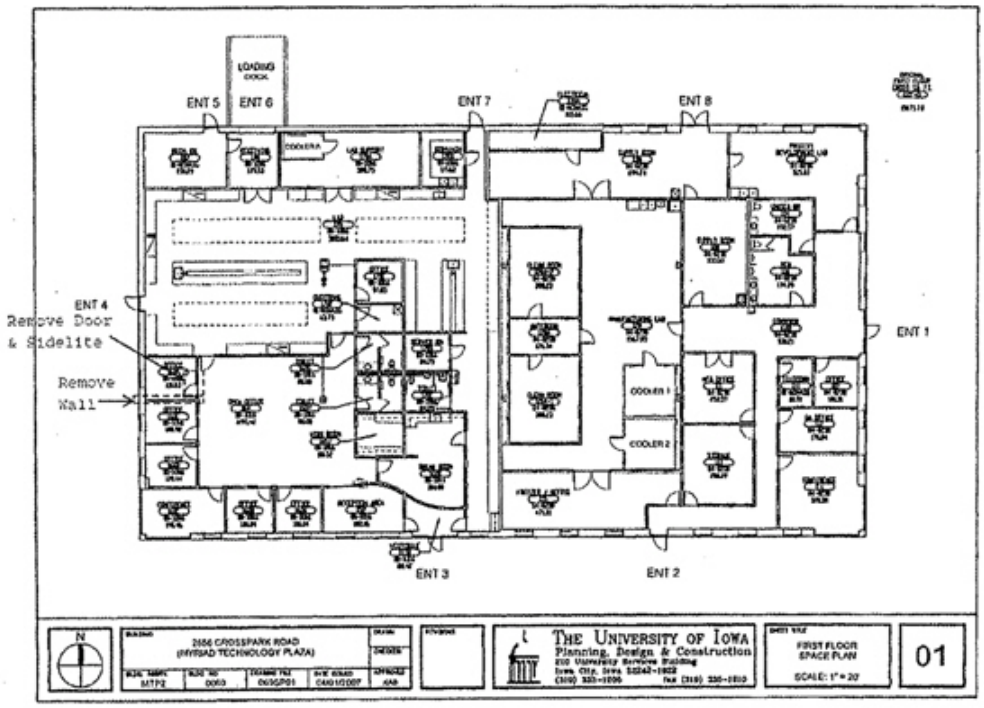

LOADING DOCK
ENT 5
ENT 6
ENT 7
ENT 4
ENT 3
COOLER A
LAB SUPPORT
RECEIVING
OFFICE
TOILET
SERVER RM
OPEN OFFICE
WORK ROOM
BREAK ROOM
CONFERENCE
RECEPTION AREA
VESTIBULE

Exhibit B


LOADING DOCK
ENT 5
ENT 6
ENT 7
ENT 8
ENT 4
Remove Door & Sidelite
Remove Wall
ENT 1
ENT 3
ENT 2
COOLER 1
COOLER 2
N
2656 CROSSPARK ROAD
(HYVSAD TECHNOLOGY PLAZA)
THE UNIVERSITY OF IOWA
Planning, Design & Construction
FIRST FLOOR
SPACE PLAN
SCALE: 1" = 20'
01

Proposal for:
University of lowa/KemPharm
2656 Crosspark Road #100

Work Summary

Project: Kem Pharm
Location: Coralville, IA
Architect: N/A
Date: 8/27/13

Description	Quantity Unit
Merit Construction Company	
protect existing carpet	360.00 sf
demo existing wall	96.00 sf
demo wall & metal studs	96.00 Is
demo existing door & sidelite	1.00 loc
demo door & sidelite	1.00 loc
haul to dump	1.00 load
frame & finish opening	35 sf
install bulkhead	12.00 If
install metal framing	12.00 If
install & finish drywall	24.00 sf
mobilization/cleanup	8.00 hr
Ace Electric - disconnect outlets in existing wall & modify light switches	1.00 Is
Bachmeier Carpet One - patch carpet	1.00 Ioc
Davis Painting - paint walls & bulkhead	1.00 Is
Building Permit - City of Coralville	1.00 Is

Clarifications:
Bond not included.
Builder's risk insurance not included.
Testing and removal of hazardous materials not included.

merit CONSTRUCTION COMPANY

8/29/2013

Exhibit C

ACE Refrigeration Mechanical Contractor

Document # 13-390C

6440 6th SL S.W. - Cedar Rapids, Iowa 52404
(800) 334-7717 - (319) 363-9209 - Fax (319) 363-0434

August 23, 2013

Jennifer Carter - Operations Manager
KemPharm, Inc.
7 Hawkeye Drive, Suite 103
North Liberty, IA 52317

Re: 2656 Crosspark Road Laboratory Upgrade

Dear Jennifer,

You are planning to occupy the space at 2656 Crosspark Road, Suite 100 in Coralville. This space has a heating, ventilating, and air conditioning system that was designed for a laboratory application. The system was designed for the future addition of fume hoods with automatic control of the face velocity at the sash, the proper amount of conditioned mate-up air, variable volume supply, and exhaust air boxes, and a variable volume fume exhaust system. At this time, you would like to add two (2) fume hoods to the building and start the system.

The fume hoods that are to be added are setting in the space. These are 6’ wide hoods. Since the current hood openings are only 5’ wide, someone will have to remove part of the cabinetry to allow them to fit. If you would like, we can coordinate that work as an extra to this proposal.

As a part of this budget proposal, we will provide the following services for a complete and operational system:

- Install and connect water and electrical service to the two (2) fume hoods in the openings in the northwest comer of the lab. The compressed air connections will not be used.
- Furnish and install stainless steel spiral ductwork to connect the hoods to the existing exhaust system.
- Furnish and install the automatic controls to regulate the air flow for the fume hoods. Create new color graphics on the existing U of I operator workstations connected to the system.
- Check out and start up the existing make-up and exhaust air systems, and adjust them as needed for proper operation.
- Air balance the system to provide the proper air flows needed.
- Remove the electrical cords hanging throughout the space. The circuits will be terminated above the ceiling and the ceiling boxes will be removed.
- Remove and re-install the ceiling as needed to accommodate the above work.
- Replace any ceiling tiles that are damaged from water or where the electrical cords are removed. This includes the damaged ceiling tiles we found in the office area.

We are pleased to quote you a budget price of Thirty six thousand dollars ($36,000.00) to furnish and install the above described work. This price includes the labor, materials, expenses, and freight charges. This price assumes that the existing equipment is operational. If any repairs or replacement parts are needed for the existing equipment, it will be handled on a time and material extra basis.

Upon approval of this proposal, an invoice for 25% of the project price will be issued for a down payment. The balance of the project will be progress billed on a monthly basis.

The lead time on some of the control components is six weeks.

Option #1 - The control system is currently controlled by a University of Iowa Andover Controls operator workstation. If you would like to have your own color graphic operator workstation to monitor and control the system, please add Five thousand four hundred dollars ($5,400.00) to the above budget proposal. This price includes training for your KemPharm personnel on the system.

This proposal is valid for 30 days. This price does not include sales tax.

Thank you for the opportunity of presenting this proposal. Please let me know if there are any questions. We look forward to being of service to you.

Sincerely,
Ace Refrigeration, Inc.

Keith Miller

This proposal is accepted and Ace Refrigeration, Inc. is authorized to proceed with the work.

Signature _____

Name (Printed) _____

Company _____

Date _____

Option #1 Yes ____ No ____

Terms and Conditions

The customer agrees to the following terms and conditions:

1. Unless otherwise stated, this proposal is based upon straight time labor only. Plastering, patching, and painting are excluded. The customer agrees to provide Ace Refrigeration with required field utilities (electricity, toilets, drinking water, elevator service, etc.) without charge. Ace Refrigeration will keep the job site clean of debris from our own operations. The customer will not back charge Ace Refrigeration for any costs or expenses without our written consent. Unless it is specifically stated in our proposal, Ace Refrigeration is not responsible for the identification, abatement, clean up, removal, or disposal of environmental bazards, including, but not limited to, asbestos or PCSs on the job site.
2. Ace Refrigeration may require a down payment including the cost of equipment and materials, engineering, and other job mobilization expenses. We may invoice the customer monthly for all materials delivered to the job site or to an off-site storage facility, and for all work performed on-site and off-site. The customer agrees to pay Ace Refrigeration the amount invoiced upon receipt of the Invoice. Lien waivers will be furnished upon request, as the work progresses, to the extent that payments are received. if the invoices are not paid within 30 days, they will be considered delinquent.
3. If the materials or equipment included in this proposal become temporarily or permanently unavailable for reasons beyond the control and without the fault of Ace Refrigeration, the time for performance of the work shall be extended. If the items are permanently unavailable, then Ace Refrigeration shall be reimbursed for the difference between the cost of the materials or equipment now unavailable and a reasonable substitute.

4. Ace Refrigeration shall provide the same warranty on the materials and equipment as we receive from the manufacturer or supplier. Unless specifically stated otherwise in the proposal, the warranty coverage shall be for the materials and equipment only, not including labor or consequential damages. All freight charges as a result of warranty coverage shall be the responsibility of the customer. All warranties shall be voided If the materials or equipment have been repaired by others, abused, altered or misused, or have not been properly maintained.

5. Ace Refrigeration shall not be liable for any special, indirect, or consequential damages arising in any manner from the equipment or material furnished or the work performed in this proposal.

6. The price of this proposal does not include sates, use, or other similar taxes. The customer shall pay, in addition to the stated price, ail taxes required, or shall provide Ace Refrigeration with acceptable tax exemption certificates. We will provide the customer with any tax payment certificate upon request and after completion and acceptance of the work.

7. Ace Refrigeration shall not be liable for any delay in the performance of the work resulting from or attributed to acts or circumstances beyond our control, including, but not limited to, acts of God, fire, riots, labor disputes, conditions of the premises, acts or omissions of the customer, owner, or other contractors, or delays caused by suppliers or subcontractors of Ace Refrigeration, etc.

8. Ace Refrigeration shall comply with all applicable federal, state, and local laws and regulations, and shall obtain all temporary licenses and permits required for the performance of the work. Licenses and permits of a permanent nature shall be the responsibility of the customer.

9. All disputes involving more than $15,000.00 shall be resolved by arbitration in accordance with the rules of the American Arbitration Association. The prevailing party shall recover all legal costs and attorney’s fees incurred as a result. Nothing here shall limit any rights under construction lien laws.

10. Insurance coverage in excess of Ace Refrigeration’s standard limits will be furnished when requested and required. No credit will be given or premium paid by Ace Refrigeration for insurance provided by others.

11. The parties hereto agree to indemnify each other from any and all liabilities, claims, expenses, losses or damages, including attorneys’ fees, which may arise in connection with the work herein specified and which are caused, in whole or in part, by the negligent act or omission of the indemnifying party.

12. The parties hereto agree to notify each other immediately upon becoming aware of an inspection under, or any alleged violation of, the Occupational Safely and Health Act relating in any way to the project or project site.

13. This proposal shall constitute the entire agreement between the parties and supersedes any prior representations or understandings,

14. No change or modification of any of the terms and conditions stated herein shall be binding upon Ace Refrigeration unless accepted by Ace Refrigeration in writing.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT 10.10

AGREEMENT TO TERMINATE CLA

BETWEEN

[*]

AND

KEMPHARM, INC.

DATED AS OF MARCH 20, 2012

Agreement to Terminate CLA
Between
[*] and KemPharm,

This Agreement to Terminate CLA ("Agreement"), dated as of March 20, 2012 (the "Effective Date"), is between KemPharm, Inc., an Iowa corporation with its principal offices at 7 Hawkeye Drive, Suite 103, North Liberty, Iowa 52317 ("KemPharm"), and [*], a Delaware limited liability company with its principal offices at [*].

RECITALS:

WHEREAS, KemPharm and [*] entered into that certain Collaboration and License Agreement dated April 20, 2011 (the "CLA");

WHEREAS, Shire LLC, a Kentucky limited liability company ("Shire"), has prosecuted, and KemPharm and Travis C. Mickle ("Mickle") have defended, an action in the United States District Court for the Western District of Virginia Roanoke Division (the "Court") captioned *Shire LLC v. Travis C. Mickle Ph.D. et. al*., No. 7:10-cv-00434 (SGW) (PMS) (W.D. Va.) (the "Shire Litigation");

WHEREAS, KemPharm, Mickle and Shire have entered into a binding letter of intent dated as of February 9, 2010 (the "Shire LOI"), wherein Shire and KemPharm agree, among other things, that (a) Shire and KemPharm shall enter into a joint stipulation of dismissal, dismissing with prejudice all claims and counterclaims relating to the Shire Litigation, and (b) Shire shall acquire for the monetary and nonmonetary consideration set forth in the Shire LOI the assets specifically identified in section 1 of Exhibit A of the Shire LOI, including, without limitation, KP106 and KemPharm's other amphetamine amino acid conjugate products, all inventory of such conjugate products, and all of KemPharm's intellectual property related to such conjugate products; and

WHEREAS, the obligations of Shire and KemPharm to consummate the transactions set forth in the Shire LOI are subject to the condition that, within sixty (60) days following the date of the Shire LOI, [*] executes the Release and Consent in the form attached hereto as Exhibit A (the "Shire Release");

WHEREAS, [*] is willing to execute the Shire Release in accordance with and subject to the terms and conditions set forth in this Agreement; and

WHEREAS, KemPharm and [*] desire to terminate the CLA in accordance with the terms and conditions set forth in this Agreement;

NOW, THEREFORE, in consideration of the covenants, terms and conditions set forth in this Agreement, the receipt and sufficiency of which the Parties hereby acknowledge, [*] and KemPharm agree as follows:

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

ARTICLE 1
Definitions

As used herein, the following terms shall have the following meanings:

1.1 "Affiliate" of a Party hereto means any entity which controls, is controlled by or is under common control with, such Party. For purposes of this definition, a Party shall be deemed to control another entity if it owns or controls, directly or indirectly, at least fifty percent (50%) of the voting equity of another entity (or other comparable ownership interest for an entity other than a corporation) or if it has management control of the other entity. Any reference in this Agreement to a Party shall include the Affiliates of that Party (unless the context requires otherwise).

1.2 "Agent" has the meaning provided in Section 5.1.

1.3 "Agreement" means this Agreement to Terminate CLA.

1.4 "Arising Product" means one or more pharmaceutical products in any dosage form for any indication relating to KP415 including products based upon, incorporating or manufactured from any IP or technology included in or stemming from KP415.

1.5 "Business Day" means any day other than a Saturday, Sunday or other day on which commercial banks in New York, New York are authorized or required by law to close.

1.6 "Change of Control" means the occurrence after the Effective Date, in one or a series of transactions, of any of the following: (i) any person (as such term is used in Sections 13(d) and 14(d)(2) of the Securities Exchange Act of 1934, as amended from time to time (the "Exchange Act")), acting alone or in concert with others, assumes or otherwise gains, directly or indirectly, beneficial ownership (as defined in Rule 13d-3 of the Exchange Act) of securities representing 50% or more of the combined voting power of the then outstanding securities of KemPharm and/or its Affiliates or its or their successors; (ii) any merger, consolidation, security exchange, division, or sale or other disposition of all or substantially all of the assets of KemPharm and/or its Affiliates or its or their successors or any other transaction in which KemPharm and/or its Affiliates or its or their successors become the subsidiary of another company which is consummated or approved by the equity holders of KemPharm and/or its Affiliates or its or their successors; and (iii) any approval by the equity holders of KemPharm and/or its Affiliates or its or their successors of a plan of liquidation. Notwithstanding the forgoing, a Change of Control shall not include a spin-off by KemPharm of assets including, without limitation, its rights and interests in KP415, to a wholly-owned subsidiary of KemPharm or the distribution of securities of such subsidiary to KemPharm's securities holders in accordance with section 355 of the Internal Revenue Code of 1986, as amended, so long as each of the following conditions are met: (i) such subsidiary agrees in a writing in a form reasonably acceptable to [*] to assume all of the obligations, representations, warranties and covenants of KemPharm under this Agreement upon the consummation of such transaction and (ii) no value (including, without limitation, any cash, securities or other property) is received by any of KemPharm, such subsidiary being spun-off or other Affiliate or any of its or their security holders other than the securities of such subsidiary in such spin-off which are being issued in such spin-off (a "355 Spin-Off Transaction").

1.7 "CLA" has the meaning set forth in the Recitals to this Agreement;

1.8 "Claims" means any and all causes of action, charges, complaints, actions, suits, proceedings, hearings, investigations, allegations, demands and claims of any kind.

1.9 "Commercialize" or "Commercialization" means the marketing, promoting, distributing, offering for sale and selling, licensing, or otherwise realizing Value from or in connection with an Arising Product(s), and conducting clinical studies after Approval, if necessary and required. When used as a verb, Commercialize means to engage in Commercialization.

1.10 "Confidential Information" means or includes any and all Proprietary Information exchanged between the Parties or their representatives prior to the Effective Date under the provisions of the CLA or in contemplation of the transactions contemplated thereby or on or subsequent to the Effective Date under the provisions of this Agreement or in contemplation of the transactions contemplated hereby.

1.11 "Direct Claim" has the meaning provided in Section 8.3(F).

1.12 "Disclosing Party" has the meaning provided in Section 5.1.

1.13 "Effective Date" has the meaning set forth in the Preamble to this Agreement.

1.14 "Indemnitee" has the meaning provided in Section 8.2.

1.15 "Indemnitor" has the meaning provided in Section 8.2.

1.16 "Intellectual Property" or simply "IP" means or includes Patent Rights, Know-How, copyrights, trademarks, mask works, data, other forms of intellectual property, Confidential Information and Proprietary Information.

1.17 "KemPharm" has the meaning set forth in the preamble to this Agreement.

1.18 "KemPharm Sale Price" means the aggregate consideration and/or other Value actually received at any time in a KemPharm Sale Transaction from the acquiring Third Party(ies) by KemPharm and its Affiliates, and/or their respective equity holders (including, without limitation, the aggregate of any and all amounts received for any options, warrants or convertible securities, dividends, distributions, deferred, contingent, earn-outs, restrictive covenants, license (including under sublicenses), milestone, and Royalties payments, engagement fees and all other payments similar to any of the foregoing).

1.19 "KemPharm Sale Transaction" means a bona fide transaction (or a series of related bona fide transactions) between one or more Third Parties and KemPharm and/or its Affiliates, and/or their respective equity holders, pursuant to which there occurs a Change of Control, which transaction(s) includes KemPharm's rights and interests in KP415. Notwithstanding the forgoing, a KemPharm Sale Transaction shall not include a 355 Spin-off Transaction by KemPharm.

1.20 "Know-How" means any unpatented technical information, know-how, show how and materials including, without limitation, all biological, chemical, pharmacological, toxicological, clinical, assay and other information, data, discoveries, inventions, improvements, processes, formula and trade secrets, patentable or otherwise.

1.21 "KP415" means (i) the molecule(s) involved in the covalent conjugation of methylphenidate (or methylpheny(piperidin-2-yl) acetate) currently referred to as KP415, and any and all [*] thereof, and (ii) any and all other [*], and any and all [*] thereof. KP415 is not restricted to indication, dosage, use or territory, all of which are covered under this definition.

1.22 "Losses" means any and all damages (including all incidental, consequential, statutory and treble damages), awards, deficiencies, settlement amounts, defaults, assessments, fines, dues, penalties, costs, fees, liabilities, obligations, taxes, liens, losses, lost profits and expenses (including, without limitation, court costs, interest and reasonable fees of attorneys, accountants and other experts) incurred by or awarded to Third Parties and required to be paid to Third Parties with respect to a Claim by reason of any judgment, order, decree, stipulation or injunction, or any settlement entered into in accordance with the provisions of this Agreement, together with all documented out-of-pocket costs and expenses incurred in complying with any judgments, orders, decrees, stipulations and injunctions that arise from or relate to a Claim of a Third Party.

1.23 "Material Changes to the Shire LOI" means, with respect to any of the Shire Definitive Settlement Documents, any term or condition which either (a) modifies, limits or affects, in any manner, the monetary benefits required to be provided by Shire under the Shire LOI or any other rights of [*] under the Shire LOI and/or this Agreement, (b) creates a risk of a potential Claim by Shire or any of its Affiliates against [*] or any of its Affiliates or successors or assigns, or any of its or their respective officers, directors, managers, members, shareholders, employees, agents and representatives (collectively, the "[*] Parties") or increases a material risk of such a potential Claim against any of the [*] Parties in a manner that is not contemplated in the Shire LOI, or (c) in any way conveys, grants, or otherwise effects any of [*]'s rights or interests in or to [*]'s Intellectual Property.

1.24 "Mickle" has the meaning set forth in the Recitals to this Agreement.

1.25 "[*]" has the meaning set forth in the preamble to this Agreement.

1.26 "Net Revenues" means the amount of money, net of any sums paid to [*] pursuant to any supply or manufacturing agreement or otherwise for the manufacture of KP415, which either Party or both Parties earn or receive at any time from the Commercialization of KP415 or otherwise from the exploitation of any licenses granted for the development and/or commercialization of KP415 (including, without limitation, monies which continue to be earned under such licenses after the expiration or termination of this Agreement and whether or not fully developed or Commercialized and all payments for upfront license payments, milestone events, Royalties, engagement fees and similar payments under sublicenses), less any applicable value added tax, sales tax or withholding tax or other deduction required by applicable law.

1.27 "Party" means either KemPharm or [*], and "Parties" means both KemPharm and [*].

1.28 "Patent Rights" means all existing patents and patent applications and all patent applications hereafter filed, including any continuations, continuations-in-part, divisions, or any substitute applications, any patent issued with respect to any such patent applications, any reissue, re-examination, renewal or extension (including any supplementary protection certificate) of any such patent, and any confirmation patent or registration patent or patent of addition based on any such patent, and all foreign counterparts of any of the foregoing, or as applicable portions thereof or individual claims therein.

1.29 "Program Sale Transaction" means a transaction (or a series of transactions), other than a Third Party License or KemPharm Sale Transaction, pursuant to which one or more Third Parties purchases and/or acquires (alone or with other assets, rights or interests) KemPharm's and [*]'s respective rights and interests in and to KP415 or other transaction (or a series of transactions) at any time involving the monetization (including, without limitation, the issuance of any securities) of KP415 whether or not at the time of any such transaction or monetization event KP415 is fully developed or Commercialized. A KemPharm Sale Transaction does not constitute a "Program Sale Transaction." Notwithstanding the forgoing, a Program Sale Transaction shall not include a 355 Spin-off Transaction by KemPharm.

1.30 "Proprietary Information" means or includes information or data owned or licensed by a Party that such Party treats as proprietary and confidential including, but not limited to, data, documents, trade secrets, methods, processes, techniques, and scientific and business information.

1.31 "Receiving Party" has the meaning provided in Section 5.1.

1.32 "Royalty" means monies or other consideration paid by either Party to the other Party or to either or both of the Parties by a Third Party Licensee on sales of KP415 and/or Arising Products in any country of the world.

1.33 "Shire" has the meaning set forth in the Recitals to this Agreement.

1.34 "Shire Closing" means the closing of the transactions contemplated under the Shire LOI in accordance with the terms of the Shire LOI or, if elected by KemPharm in accordance with Section 2.2, in accordance with the Shire Definitive Settlement Documents.

1.35 "Shire Definitive Settlement Documents" means any settlement agreement and/or asset purchase agreement or other documents entered into by and between KemPharm and Shire which contain the terms and conditions set forth in the Shire LOI and such other and additional terms and conditions of the transaction contemplated in the Shire LOI.

1.36 "Shire Litigation" has the meaning set forth in the Recitals to this Agreement.

1.37 "Shire LOI" has the meaning set forth in the Recitals to this Agreement.

1.38 "Shire Release" has the meaning set forth in the Recitals to this Agreement.

1.39 "Shire Payment" has the meaning set forth in Section 2.3 below.

1.40 "Third Party" means any person or entity other than either Party or its Affiliates.

1.41 "Third Party Claim" has the meaning provided in Section 8.2.

1.42 "Third Party License" means a license by either or both of the Parties to a Third Party granting development, Commercialization and/or other exploitation rights with respect to KP415 or any Arising Product.

1.43 "Third Party Licensee" means a Third Party which is granted development, Commercialization and/or other exploitation rights under a Third Party License, including the Third Party's sublicensees, if any.

1.44 "Value" means value which is associated with KP415 and/or any Arising Product received by either or both Parties (excluding sums paid to [*] pursuant to any supply or manufacturing agreement or otherwise for the manufacture of KP415 and/or any Arising Product), including, by way of illustration, without limitation: the purchase price and other net consideration actually received at any time under a Program Sale Transaction; Net Revenues received by either Party; payments received from a Third Party License (such as, without limitation, upfront license payments, milestone payments, Royalties, engagement fees, discontinuance or standstill payments and similar payments under sublicenses); that portion of the KemPharm Sale Price attributable to KP415 in accordance with Section 4.2 below; and other transactions involving the monetization (including, without limitation, the issuance of securities (other than a 355 Spin-Off Transaction), options, warrants or convertible securities, dividends, distributions, and deferred, contingent, earn-outs, and restrictive covenants payments); whether or not KP415 is fully developed or Commercialized at the time of calculation of such value and covering KP415 in any dosage form for any application or indication anywhere in the world.

ARTICLE 2
EXECUTION OF SHIRE RELEASE; CONSUMMATION OF THE SHIRE LOI

2.1 Execution of Shire Release. Simultaneous with the Shire Closing, and the receipt of payment by [*] of the amount payable to [*] in accordance with Section 2.3 below, [*] shall execute and deliver to KemPharm the Shire Release in the form attached hereto as Exhibit A.

2.2 Consummation of the Shire LOI. Following the execution of this Agreement, KemPharm shall close upon the transactions provided in the Shire LOI; provided, however, that KemPhann, in its discretion, may negotiate, execute and close upon Shire Definitive Settlement Documents. In the event KemPharm and Shire agree upon final drafts of Shire Definitive Settlement Documents, KemPhann shall provide to [*] a copy of such final drafts at least three (3) Business Days prior to the Shire Closing. In furtherance of the Shire Closing, [*] shall deliver to KemPharm or directly to Shire within three (3) Business Days after the date of the Shire Closing the complete inventory in [*]'s possession of any KP106 active pharmaceutical ingredient as of such date and a certificate signed by [*] acknowledging that any KP106 manufactured in any dosage form in [*]'s possession as of such date has been destroyed.

2.3 Shire Payment. Upon the Shire Closing, out of the single one-time payment of $22,000,000 (the "Shire Payment") to be paid by Shire thereunder, KemPharm shall arrange for $[*] of the $22,000,000 to be paid directly by Shire via bank transfer to [*] consistent with wiring instructions given by [*] to KemPharm. Such payment of $[*] to [*] shall be inclusive of any portion of the $22,000,000 Shire Payment which [*] is due under the CLA for a "Program Sale Transaction" (as defined under the CLA). [*] shall have no right or Claim under this Agreement or the CLA to any portion of the aforementioned $22,000,000 Shire Payment except for the aforementioned $[*] sum.

2.4 [*]'s Revocation Rights. In the event that KemPharm negotiates final drafts of Shire Settlement Documents, then KemPharm shall provide a copy of such final drafts in accordance with Section 2.2 hereof. If the Shire Settlement Documents include any Material Changes to the Shire LOI, then [*] shall have the following right to revoke this Agreement: by no later than 5:00 P.M. E.S.T. on the third (3rd) Business Day following the date on which [*] receives a copy of such final signed or unsigned drafts of the Shire Settlement Documents, [*] may deliver written notice to KemPharm which states that the Shire Definitive Settlement Documents includes Material Changes to the Shire LOI, describes in reasonable detail the Material Changes to the Shire LOI and declares that [*] is revoking this Agreement. Such revocation shall be effective immediately upon KemPharm's receipt of the notice required herein. In addition to the foregoing, [*] shall have the right to revoke this Agreement by written notice to KemPhann under either of the following events:
(i) KemPharm shall have failed to deliver to [*] a written notice that the Shire Closing has occurred within thirty (30) days after the Effective Date, or (ii) [*] shall not have received its share of the Shire Payment in accordance with Section 2.3 above or the Shire Release executed by Shire. In the event that [*] revokes this Agreement in accordance with this Section 2.4, then each of the following shall terminate effective simultaneous with such revocation: (i) [*]'s right to receive the payment provided under Section 2.3, (ii) the termination of the CLA pursuant to Article 3 (and the CLA shall be reinstated automatically thereon in full force and effect and all of the rights and obligations of the Parties under the CLA shall continue and survive); and (iii) [*]'s rights and interest in KP415 under Article 4.

ARTICLE 3
TERMINATION OF THE CLA

3.1 Termination of the CLA. Subject to the terms and conditions of this Agreement, including, without limitation, the revocation rights of [*] under Section 2.4, the CLA shall terminate upon the Shire Closing and payment to [*] of the amount due under Section 2.3 above. Upon termination of the CLA pursuant to this Section 3.1, no rights or obligations of either Party under the CLA shall survive the termination. The Parties acknowledge and agree that, following the assignment to Shire of the "Acquired Assets" (as defined under the Shire LOI), there are no remaining "Arising Technology," "Arising Patents" or "Arising IP" as those terms are defined in the CLA. Except as otherwise provided in Section 2.2 with respect to inventory and manufactured KP106, following the termination of the CLA, each Party shall promptly transfer to the other Party, at the other Party's cost, or destroy at the other Party's written request, all relevant records and materials in its possession or control containing Confidential Information of

the other Party; provided, however, that each Party may keep one archival copy of the Confidential Information of the other Party in the legal department files of such Party or its legal representative in accordance with the provisions of Article 5 below. Subject to the terms and conditions of this Agreement, including, without limitation, the revocation rights of [*] under Section 2.4, each Party hereby forever releases and discharges the other Party and each of the other Party's officers, directors, shareholders, members, managers, employees and agents from any and all Claims, known or suspected by the releasing Party as of the date of Shire Closing, at law or in equity, arising from or related to the CLA. Nothing in this Section 3.1 shall limit, impair or affect any of the rights of the Parties under this Agreement and no Party shall be deemed to release, waive or discharge any of its rights or remedies under this Agreement or at law or in equity with respect to the transactions contemplated under this Agreement.

ARTICLE 4
GRANT OF INTEREST IN KP415

4.1 Division of Value Generally. Subject to the terms and conditions set forth in this Agreement, the Parties acknowledge and agree that [*] shall have the right to receive an amount equal to [*] of any and all Value. Upon the occurrence of a Program Sale Transaction or KemPharm Sale Transaction, the Value to be paid to [*] (or the amount to be deposited in escrow in accordance with Section 4.2, as the case may be) shall be paid to [*] (or the escrow agent, as the case may be) directly out of the closing proceeds and any other consideration (and post-closing proceeds and/or other consideration, if any) of such Program Sale Transaction or KemPharm Sale Transaction simultaneously with and when each payment by such Third Party is made to KemPharm or any of its Affiliates, and/or any of their respective equity holders, of any and all such proceeds or the delivery of other consideration therefore whenever made. KemPharm shall arrange in the agreement for a Program Sale Transaction or KemPharm Sale Transaction that payment of such Value to [*] (or the amount to be deposited in escrow pursuant to Section 4.2, as the case may be) shall be made by wire transfer of immediately available funds to an account designated by [*] (or to the escrow agent, as the case may be), and the delivery of such other consideration representing any such Value (or the amount to be deposited in escrow pursuant to Section 4.2, as the case may be) shall be made to the address of [*] set forth in this Agreement or as otherwise designated by [*] (or to the escrow agent, as the case may be). In the event that [*] is properly paid in full all of its share under this Agreement of the Value of a Program Sale Transaction or KemPharm Sale Price directly by the Third Party purchaser in such Program Sale Transaction or KemPharm Sale Transaction out of the proceeds thereof in accordance with this Article 4, [*] shall have no right to make a Claim against KemPharm for KemPharm's share of the Value received from such Third Party purchaser out of the proceeds of such Program Sale Transaction or KemPharm Sale Transaction, as the case may be.

4.2 KemPharm Sale Transaction. If KemPharm or an Affiliate holding rights, title or interests in or to KP415 enters into a KemPharm Sale Transaction, then such transaction shall include [*]'s rights and interests in and to KP415; provided that [*] shall be paid its share of the Value of the KemPharm Sale Price. The KemPharm Sale Price shall constitute Value to the extent that the KemPharm Sale Price is attributable, in whole or in part, to any of KemPharm's or an Affiliate's rights, title or interests in or to KP415. Upon proper payment of such Value to [*] in connection with a KemPharm Sale Transaction, [*]'s rights and interests in and to KP415 shall be terminated unless after the consummation of such KemPharm Sale Transaction KemPharm or

any of its Affiliates, and/or any of their respective equity holders, retains directly or indirectly any rights, title or interests in and to KP415, in which event such rights and interests of [*] shall continue and survive the consummation of such KemPharm Sale Transaction and [*] shall be paid its share of the Value of the KemPharm Sale Price with respect to such KemPharm Sale Transaction. The interests of [*] which shall survive pursuant to the foregoing sentence shall be limited to the extent of the remaining interest in KemPharm and its Affiliates held by their respective equity holders, including future Value payments made to such equity holders and Value received by such equity holders in any subsequent transactions including, without limitation, any Program Sale Transactions and any KemPharm Sale Transactions. KemPharm or the Affiliate who is a party to the KemPharm Sale Transaction shall provide to [*] written notice of its intent to enter into a KemPharm Sale Transaction, which notice shall specify the consideration and purchase price to be paid to KemPharm, its Affiliates and/or their respective equity holders in such KemPharm Sale Transaction. Such notice shall be delivered to [*] as soon as reasonably practicable, but in no event later than five (5) Business Days after the execution of any agreement contemplating such KemPharm Sale Transaction and no later than ninety (90) days prior to the consummation of such KemPharm Sale Transaction. If the Parties cannot agree on the determination of the Value contained within a KemPharm Sale Price within ten (10) days of such notice by KemPharm to [*], then such Value shall be determined by an independent valuation expert selected by mutual written agreement of the Parties. In the event that the Parties are unable to mutually agree upon the selection of an independent valuation expert within five (5) Business Days of the expiration of such ten-day period, then such Value shall be determined in accordance with the following procedures: Each of the Parties shall select its own independent valuation expert and pay all costs associated with its own valuation expert. The two independent valuation experts shall prepare a written determination of such Value within three (3) months of selection. If the determination of the two valuation experts vary by [*] or less, the Parties shall accept as final and binding the average of the determination by the two independent valuation experts as the Value attributed in such KemPharm Sale Transaction. If the results of the foregoing two determinations vary by more than [*], then the two valuation experts shall select a third independent valuation expert to prepare its own valuation of the Value attributed to such KemPharm Sale Transaction. The third valuation expert will, at a minimum, evaluate the valuations of the first two valuation experts and conduct its own analyses as necessary to support its own valuation. The three independent valuation experts shall agree to comply with this schedule of performance before accepting appointment. The Parties shall accept as final and binding the average of the determinations by the three independent valuation experts as the Value attributed in such KemPharm Sale Transaction. The Parties agree that each independent valuation expert engaged for the purposes of determining Value pursuant to this Section 4.2 shall be at least a partner or director of a nationally recognized appraisal firm, which may be an investment banking firm, a certified public accounting firm, or any other firm that performs appraisal and valuation services in the pharmaceutical industry. The Parties agree that any and all costs associated with the first (and, if applicable, the third) valuation expert and its valuation determination shall be paid equally by [*] and KemPharm. The Parties also agree that the Value shall be equal to a percentage of the KemPharm Sale Price, which percentage shall be proportionate to the value of KemPharm's and/or its Affiliate's rights, title or interests in KP415 expressed as a percentage of the aggregate value of the overall portfolio of tangible and intangible assets as a going concern that are included within the KemPharm Sale Transaction. For the sake of clarity, each individual asset of KemPharm or its Affiliates included within the

KemPharm Sale Transaction, including KP415, shall be assigned a percentage that represents each individual asset's relative contribution to the KemPharm Sale Price, such that the Value in question to be shared by the Parties shall be clearly defined and distinct from all other assets solely owned by KemPharm and/or its Affiliates. The Parties also agree that any valuation shall be conducted in accordance with the terms set forth generally in Exhibit B. The Parties agree that, in the event that such valuation determination is not made prior to the scheduled closing of the KemPharm Sale Transaction despite the Parties acting in good faith and with reasonable diligence to obtain such valuation determination in accordance with this Section 4.2, KemPharm shall have the right to close the KemPharm Sale Transaction on or after the schedule closing date; provided, however, that [*] of the KemPharm Sale Price shall be deposited into an escrow account out of the proceeds or other consideration paid under the KemPharm Sale Transaction and released upon completion of the determination of Value in accordance with this Section 4.2. The agent of the aforementioned escrow account shall be mutually agreed upon in writing by the Parties, who shall be instructed to distribute the escrowed proceeds and consideration upon completion of the Value determination in such proportions as shall correctly pay [*] its share of the Value of the KemPharm Sale Price, and the remaining balance shall be paid to KemPharm (or to its Affiliates as instructed by KemPharm). In the event that the share of the Value upon completion of the Value determination exceeds the amount held in such escrow, KemPharm or its Affiliates shall pay to [*] within five (5) days of such determination the difference between the share of the Value determined in accordance with this Section 4.2 and the amount in escrow.

4.3 Limitation on [*]'s Rights to KP415. Except as otherwise expressly provided in this Article 4, [*] shall have no rights or interest in or to KP415. Further, KemPharm shall have no obligations to [*] to take any actions to develop or Commercialize KP415. Moreover, [*] acknowledges the option to purchase KP415 which is granted to Shire under the Shire LOI, which, if such option is exercised by Shire under the Shire LOI, shall be deemed to be a Program Sale Transaction and [*] shall be entitled to its share of Value with respect thereto under Section 4.1.

ARTICLE 5
CONFIDENTIAL INFORMATION

5.1 Confidential Information. Each of the Parties ("Receiving Party") shall keep all Confidential Information received from the other Party ("Disclosing Party") with the same degree of care it maintains the confidentiality of its own Confidential Information, which in no event shall be less than a reasonable degree of care. The Receiving Party shall not use such Confidential Information for any purpose other than in performance of this Agreement or disclose the same to any other Third Party other than to such of its employees, directors, officers, representatives, consultants, and agents (collectively, an "Agent") who have a need to know such Confidential Information to implement the terms of this Agreement or enforce its rights under this Agreement, or to a Third Party Licensee. A Receiving Party shall advise any Agent or Third Party Licensee who receives such Confidential Information of the confidential nature thereof and of the obligations contained in this Agreement relating thereto. Upon termination of this Agreement, the Receiving Party shall use Commercially Reasonable Efforts to return or destroy all documents, tapes or other media containing Confidential Information of the Disclosing Party that remain in the Receiving Party's or its Agents' possession, except that the Receiving Party may keep one (1) archival copy of the Confidential Information in the legal department files of

the Receiving Party or its outside counsel. Such archival copy shall be deemed to be the property of the Disclosing Party, and shall continue to be subject to the provisions of this Section 5.1. The above restrictions set forth in this Section 5.1 on the use and disclosure of Confidential Information shall not apply to any information which (a) is already known to the Receiving Party at the time of disclosure by the Disclosing Party, as demonstrated by competent proof (other than as a result of prior disclosure under any agreement between the Parties with respect to confidentiality), (b) is or becomes generally available to the public other than through any act or omission of the Receiving Party in breach of this Agreement, (c) is acquired by the Receiving Party from a Third Party who is not directly or indirectly under an obligation of confidentiality to the Disclosing Party with respect to same, or (d) is developed independently by the Receiving Party without use, direct or indirect, of Confidential Information. In addition, nothing in this Article 5 shall be interpreted to limit the ability of either Party to disclose its own Confidential Information to any other Person on such terms and subject to such conditions as it deems advisable or appropriate.

A specific item of Confidential Information shall not be covered or deemed to be covered by the foregoing exclusions merely because a general category of information containing such specific item is within the scope of such exclusions. Notwithstanding anything in this Agreement to the contrary, in the event the Receiving Party becomes, or anticipates that it may become, legally compelled to disclose any of the Confidential Information, the Receiving Party will provide the Disclosing Party with prompt notice so that the Disclosing Party may seek a protective order or other appropriate remedy or waive compliance with the provisions of this Agreement. If a full protective order or other appropriate remedy is not obtained, the Receiving Party will disclose only that portion of the Confidential Information which it remains legally compelled to disclose, and will exercise its reasonable efforts to obtain reliable assurance that confidential treatment will be accorded the Confidential Information.

If any portion of the Confidential Information falls into one of the above exceptions, the remainder of the information shall continue to be subject to the requirements of the Agreement. Further, Confidential Information shall not be deemed within the foregoing exceptions if such Confidential Information: (i) is specific and merely embraced by more general information in the public domain or in the receiving party’s possession; or (ii) is a combination which might be pieced together so as to reconstruct such Confidential Information from multiple sources, none of which show the whole combination, the principles of operation and/or method of use.

5.2 Permitted Disclosure and Use. Notwithstanding Section 5.1, a Party may use and disclose Confidential Information belonging to the other Party only to the extent such use and/or disclosure is reasonably necessary to perform its obligations under this Agreement or comply with applicable laws or the regulations of any government authority or any security exchange on which its shares or those of any group company are, or in the process of being, listed. If a Party deems it necessary to disclose Confidential Information of the other Party pursuant to this Section 5.2, such Party shall where lawful to do so give such reasonable advance notice of such disclosure, to the other Party as it is able to do to permit such other Party to object to such disclosure or to take measures to ensure confidential treatment of Confidential Information that is being disclosed.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

5.3 Public Announcements; Press Release. Except as may be expressly permitted under this Section 5.3 or required by applicable laws or the regulations of any security exchange on which its shares or those of any group company are listed or in the process of being listed, neither Party will make any public announcement of any information regarding the existence, terms or conditions of this Agreement without the prior written approval of the Parties. Once any written statement is approved for disclosure by the other Party or information is otherwise made public in accordance with this Section 5.3, either Party may make a subsequent public disclosure of the contents of such statement without further approval of the other Party. Nothing in the foregoing, however, shall prohibit a Party from making such disclosures as may be necessary or reasonably appropriate in order to comply with applicable law or any rule or regulation of any nationally recognized securities exchange; in such event, however, the Party making the disclosure shall use good faith efforts to consult with the other Party prior to such disclosure and consider in good faith such other Party's proposed modifications and, where applicable, shall request confidential treatment to the extent available.

5.4 Confidentiality of this Agreement. The terms of this Agreement shall be Confidential Information of each Party and, as such, shall be subject to the provisions of this Article 5.

5.5 Confidentiality of Shire LOI. The existence and terms of the Shire LOI and any Shire Definitive Settlement Documents shall be Confidential Information subject to the provisions of this Article 5. [*] shall not make any disclosure to the public or any Third Party (other than to its employees, officers, directors, members, managers, legal counsel and financial advisors) regarding the transactions contemplated by the Shire LOI or any Shire Definitive Settlement Documents or the terms and conditions thereof except to the limited extent that KemPharm is permitted to do so under the Shire LOI and/or the Shire Definitive Settlement Documents.

5.6 Intellectual Property of [*]. KemPharm acknowledges and agrees, for itself and its Affiliates, that neither it nor any of its Affiliates shall have any rights, title or interests in, and shall not, and shall not permit others to, misappropriate, use, disclose or otherwise exploit, any Intellectual Property of [*] in its or their possession or control, notwithstanding anything to the contrary contained in this Agreement or the Shire LOI (or the Shire Definitive Settlement Documents, if applicable) or the transactions contemplated hereunder or thereunder, or as a result of the disclosure or delivery to Shire or any of its Affiliates of any data, materials, reports or documents containing any Intellectual Property of [*] required pursuant to the Shire LOI (or the Shire Definitive Settlement Documents, if applicable). KemPharm acknowledges and agrees that nothing contained in this Agreement, the Shire LOI (or the Shire Definitive Settlement Documents, if applicable) or the transactions contemplated hereunder or thereunder shall constitute or be construed as creating an express or implied grant of any rights, title, interests or licenses to KemPharm or Shire or their respective Affiliates of the Intellectual Property of [*] and KemPharm hereby agrees to irrevocably waive, and agrees not to assert, any claim that KemPharm or any of its Affiliates has any rights, title or interests in or license to any of [*]'s Intellectual Property.

5.7 Equitable Remedies. Each Party specifically recognizes that any breach by it of this Article 5 may cause irreparable injury to the other Party and that actual damages may be difficult to ascertain and, in any event, may be inadequate. Accordingly (and without limiting the availability of legal or equitable, including injunctive, remedies under any other provisions of this Agreement), each Party agrees that in the event of any such breach, the other Party shall be entitled to seek injunctive relief and such other legal and equitable remedies as may be available.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

5.8 Survival. The obligations and prohibitions contained in this Article 5 shall survive the expiration or termination of this Agreement for a period of [*] years thereafter; provided, however, that Confidential Information which is a trade secret of the Disclosing Party if disclosed in writing or, if disclosed orally and confirmed within thirty (30) days in writing as being a trade secret of the Disclosing Party, shall be maintained in secret until such time as it no longer qualifies as a trade secret or until such time as Disclosing Party advises Receiving Party in writing that such information is no longer a trade secret.

ARTICLE 6
REPRESENTATIONS AND WARRANTIES; CERTAIN COVENANTS OF KEMPHARM

KemPharm represents, warrants and covenants to [*] as of the Effective Date that:

6.1 Existence. KemPharm (a) is a company duly organized, validly existing, and in good standing under the laws of the State of Iowa; (b) is duly qualified as an entity and in good standing under the laws of each jurisdiction where its ownership or lease of property or the conduct of its business requires such qualification, where the failure to be so qualified would have a material adverse effect on its financial condition or its ability to perform its obligations under this Agreement; and (c) has the requisite power and authority to execute, deliver, grant and perform the covenants and transactions contemplated in this Agreement.

6.2 Authority. The execution, delivery and performance of this Agreement by KemPharm and all instruments and documents to be delivered by KemPharm hereunder (a) have been duly authorized by all necessary or proper action; (b) do not conflict with any provision of the charter documents of KemPharm; (c) will not violate any applicable law or regulation or any order or decree of any court or governmental authority having jurisdiction over KemPhann where such violation would have a material adverse effect on its ability to perform its obligations under this Agreement; and (d) will not violate or conflict with any terms of any indenture, mortgage, deed of trust, lease, agreement, or other instrument to which KemPharm is a party, or by which KemPharm or any of its property is bound, which violation or conflict would have a material adverse effect on its financial condition or on its ability to perform its obligations under this Agreement.

6.3 Binding Effect. This Agreement has been duly executed and delivered by KemPharm and constitutes a legal, valid and binding obligation of KemPharm, enforceable against it in accordance with its terms, except as such enforceability may be limited by (a) applicable bankruptcy, insolvency, reorganization, moratorium, and other laws generally applicable to creditors' rights; and (b) judicial discretion in the availability of equitable relief.

6.4 Existence of Claims. As of the time of the Agreement, KemPharm has not received notice, whether written or oral, from any Third Party of any, and knows of no facts or circumstances which would lead to any, Claim asserting the invalidity, misuse, unregisterability or unenforceability of any of its patents, or challenging its right to use or ownership of any of its patent rights or Know-How, or making any adverse Claim of ownership thereof, or asserting that

any trade secrets or other intellectual property rights of such Third Party would be misappropriated by KP415, or that any issued patent of such Third Party in the Territory would be infringed by KP415 or the manufacture, distribution, marketing or sale of the Arising Product(s) in the Territory.

6.5 IP Rights. To the best of its knowledge, KemPharm owns or has licenses to all of its patent rights, Know-How and all other Intellectual Property, Confidential Information, Proprietary Information of any nature whatsoever provided by it to [*] under this Agreement or otherwise relating to the development and/or Commercialization of KP415, and it owns or has licenses to such Intellectual Property free and clear of all liens, Claims and encumbrances and free of all royalty or similar payment obligations to any Third Party, except such liens, Claims, encumbrances and obligations as will not have a material adverse effect on the other Party's rights under this Agreement.

6.6 Shire LOI. As of the Effective Date, none of KemPharm or any of KemPharm's Affiliates, Mickle or any equity holders, employees, officers, or directors of KemPhann or any of KemPharm's Affiliates (i) are party to any agreements with Shire or any of Shire's Affiliates other than the Shire LOI; (ii) are negotiating any agreements with Shire or any of Shire's Affiliates other than the Shire Definitive Settlement Documents; or (iii) shall receive at any time for the transfer of the "Acquired Assets" (as defined in the Shire LOI) or the settlement of any Claim between Shire and any of them any consideration or Value other than KemPharm's share of the Shire Payment in accordance with Section 2.3 above and the express non-monetary consideration covered under the covenants, terms and conditions set forth in the Shire LOI (except for reasonable consulting fees payable to Mickle, not in excess of industry standards, for consulting services described in Section 12 of the Shire LOI). If KemPharm or any of KemPharm's Affiliates, Mickle or any equity holders, employees, officers, or directors of KemPharm or any of KemPharm's Affiliates enters into any agreement or similar transaction, directly or indirectly, with Shire or any of Shire's Affiliates after the Effective Date (other than the Shire LOI or the Shire Definitive Settlement Documents, if applicable) involving the exchange or issuance of consideration to KemPharm or any of KemPharm's Affiliates, Mickle or any equity holders, employees, officers, or directors of KemPhann or any of KemPharm's Affiliates for any securities, assets, property or rights in any IP of KemPharm or its Affiliates which includes Value which should have been paid to [*] under the CLA (with the defined term "Value" having such meaning under the CLA as it relates to KP106) or under this Agreement, [*] shall be entitled to receive its share of such Value directly from Shire and/or its Affiliates which are a party to such agreement or transaction, and [*] shall have such additional rights and remedies under this Agreement and available to [*] at law or in equity. For the sake of clarity and not in limitation of the generality of the foregoing, if such agreement or transaction relates in any way to KP106, [*] shall receive [*] of the aggregate of such Value and, if such agreement or transaction relates in any way to KP415, [*] shall receive [*] of the aggregate of such Value. The manner of payment of such Value to [*] under this Section 6.6 shall be as set forth in Article 4 of this Agreement. In furtherance of the foregoing rights of [*], during the [*] period after the Effective Date, KemPhann shall provide to [*] written notice of its or any of its Affiliates' intent to enter into any agreement or transaction, directly or indirectly, with Shire or any of its Affiliates after the Effective Date (other than the Shire LOI and the Shire Definitive Settlement Documents, if applicable) as soon as practicable but in no event later than five (5) Business Days after the execution of any agreement or letter of intent or similar document and no later than

ninety (90) days prior to the consummation of the transactions contemplated thereunder. Such notice shall contain the purchase price and other consideration being paid and the other written terms and conditions of the agreement or transaction. The agreement contemplating such transaction shall expressly acknowledge the rights of [*] under this Agreement including, without limitation, the right to receive its share of the Value as set forth above out of the proceeds or other amounts due to KemPharm under such agreement.

6.7 Disclaimer of Warranty. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A WARRANTY OR REPRESENTATION BY KEMPHARM (I) REGARDING THE EFFECTIVENESS, VALUE, SAFETY, NON TOXICITY, OR PATENTABILITY OF KP415 AND/OR U.S. PROVISION PATENT APPLICATION NO. [*] OR (II) THAT KP415 WILL BE APPROVED OR OTHERWISE DEVELOPED OR COMMERCIALIZED. KEMPHARM MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO KP415.

ARTICLE 7
REPRESENTATIONS AND WARRANTIES OF [*]

[*] represents, warrants and covenants to [*] as of the Effective Date that:

7.1 Existence. [*] (a) is a company duly organized, validly existing, and in good standing under the laws of the State of Delaware; (b) is duly qualified as an entity and in good standing under the laws of each jurisdiction where its ownership or lease of property or the conduct of its business requires such qualification, where the failure to be so qualified would have a material adverse effect on its financial condition or its ability to perform its obligations under this Agreement; (c) has the requisite power and authority to execute, deliver, grant and perform the covenants and transactions contemplated in this Agreement.

7.2 Authority. The execution, delivery and performance of this Agreement by [*] and all instruments and documents to be delivered by [*] hereunder (a) have been duly authorized by all necessary or proper action; (b) do not conflict with any provision of the charter documents of [*]; (c) will not violate any applicable law or regulation or any order or decree of any court or governmental authority having jurisdiction over [*] where such violation would have a material adverse effect on its ability to perform its obligations under this Agreement; and (d) will not violate or conflict with any terms of any indenture, mortgage, deed of trust, lease, agreement, or other instrument to which [*] is a party, or by which [*] or any of its property is bound, which violation or conflict would have a material adverse effect on its financial condition or on its ability to perform its obligations under this Agreement.

7.3 Binding Effect. This Agreement has been duly executed and delivered by [*] and constitutes a legal, valid and binding obligation of [*], enforceable against it in accordance with its terms, except as such enforceability may be limited by (a) [*]; and (b) [*].

ARTICLE 8
INDEMNIFICATION

8.1 Mutual Indemnification. Each Party shall defend indemnify and hold harmless the other Party, including Affiliates and each of their respective officers, directors, shareholders, employees, representatives, agents, successors and assigns from and against all Claims of Third Parties, and all associated Losses, to the extent arising out of (a) a Party's gross negligence or willful misconduct in performing any of its obligations under this Agreement, or (b) a material breach by a Party of any of its representations, warranties, covenants or agreements under this Agreement.

8.2 KemPharm Indemnification of Shire Complaint. In the event that Shire brings any Claim against [*] in connection with the Acquired Assets other than solely as a result of a breach by [*] of any obligation under this Agreement or in breach of the Shire Release, KemPharm shall indemnify, defend, and hold harmless, at KemPharm's cost and expense, [*] and [*]'s Affiliates, and each of their respective officers, directors, shareholders, employees, representatives, agents, successors and assigns who are named therein (collectively, the "[*] Parties"), in such Claim by Shire (a "Shire Claim").

8.3 Procedure for Indemnification.

(A) Notice. In the case of a Claim made by a Third Party (a "Third Party Claim") as to which a Party (the "Indemnitor") may be obligated to provide indemnification pursuant to this Agreement (including a Shire Claim), such Party seeking indemnification hereunder ("Indemnitee") shall notify the Indemnitor in writing of the Third Party Claim (and specifying in reasonable detail the factual basis for the Third Party Claim and to the extent known, the amount of the Third Party Claim) reasonably promptly after becoming aware of such Third Party Claim; provided, however, that failure to give such notification will not affect the indemnification provided hereunder except to the extent the Indemnitor shall have been actually materially prejudiced as a result of such failure.

(B) Defense of Claim. If the Indemnitor acknowledges in writing its obligation to indemnify the Indemnitee for a Third Party Claim, then the Indemnitor may elect to assume the defense of any such Third Party Claim and any litigation resulting from such Claim. Both Parties agree to cooperate with the Party providing the defense in all material respects including the timing of requests for information and access to material necessary to the defense.

(C) Assumption of Defense in the event of Default of Indemnitee. In the event the Indemnitor is not able to provide a defense, or elects not to provide a defense against any Third Party Claim, under this Section 8.3, notwithstanding anything to the contrary contained in this Agreement, an Indemnitee shall be entitled to assume the defense of any Third Party Claim and at its sole option provide the defense against the Third Party Claim. In such case of the Indemnitee providing the defense, the Indemnitor will be required, within thirty (30) days after receipt of written notice from the Indemnitee of the commencement or assertion of any such Third Party Claim, to provide to the Indemnitee all materials, correspondence, documents and information which may be useful in mounting a defense.

(D) Settlement of Claims. If the Indemnitor acknowledges in writing its obligation to indemnify the Indemnitee for a Third Party Claim, the Indemnitee will agree to a reasonable settlement, compromise or discharge of such Third Party Claim that the Indemnitor may

recommend that by its terms obligates the Indemnitor to pay the full amount of Losses (whether through settlement or otherwise) in connection with such Third Party Claim and unconditionally and irrevocably releases the Indemnitee completely from all Losses in connection with such Third Party Claim; provided, however, that, without the Indemnitee's prior written consent, the Indemnitor shall not consent to any settlement, compromise or discharge (including, without limitation, the consent to entry of any judgment), and the Indemnitee may refuse to agree to any such settlement, compromise or discharge, that provides for injunctive or other non-monetary relief materially and adversely affecting the Indemnitee. If the Indemnitor acknowledges in writing its obligation to indemnify the Indemnitee against a Third Party Claim, the Indemnitee shall not (unless required by applicable law) admit any liability with respect to, or settle, compromise or discharge, such Third Party Claim without the Indemnitor's prior written consent (which consent shall not be unreasonably withheld, delayed or conditioned).

(E) Other Assumption of Defense. Notwithstanding anything to the contrary contained in this Agreement, an Indemnitee shall be entitled to assume the defense of any Third Party Claim with respect to the Indemnitee upon written notice to the Indemnitor in which case, the Indemnitor shall be relieved of liability under Section 8.1 solely for such Third Party Claim and related Losses.

(F) Direct Claims. Any Claim on account of any and all damages, deficiencies, defaults, assessments, fines, dues, penalties, costs, fees, liabilities, obligations, taxes, liens, losses, and expenses (including, without limitation, court costs, interest and reasonable fees of attorneys, accountants and other experts) incurred by or suffered by a Party which does not involve a Third Party Claim (a "Direct Claim") shall be asserted by reasonably prompt written notice (stating in reasonable detail, the basis of such Claim and a reasonable estimate of the amount thereof) given by the Indemnitee to the Indemnitor. Except as otherwise stated in this Agreement, for a period of sixty (60) days from and after the receipt of the written notice (or such shorter period of time as otherwise set forth in this Agreement with respect to a specific Claim) the Parties shall attempt in good faith to resolve such Direct Claim. If the Parties are unable to resolve such Direct Claim, the Party seeking recourse may thereafter pursue any and all legal and equitable remedies at its disposal to enforce said Direct Claim.

ARTICLE 9
TERM AND TERMINATION

9.1 Term. This Agreement shall be deemed to commence on the Effective Date and, unless terminated earlier in accordance with the terms of this Agreement, shall continue until the completion or termination of all payments to [*] of Value pursuant to Article 4 and Section 6.6 (the "Term").

9.2 Accrued Rights; Surviving Obligations. Termination, relinquishment or expiration of this Agreement for any reason shall be without prejudice to any rights that shall have accrued to the benefit of any Party prior to such termination, relinquishment or expiration. Such termination, relinquishment or expiration shall not relieve any Party from obligations which are expressly or by implication intended to survive termination, relinquishment or expiration of this Agreement and shall not affect or prejudice any provision of this Agreement which is expressly or by implication provided to come into effect on, or continue in effect after, such termination, relinquishment or expiration.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

9.3 Survival. The following provisions shall survive the termination of this Agreement: [*], [*], [*], [*] and [*], as well as any applicable definitions and general provisions. Remedies for breaches will also survive termination of this Agreement.

ARTICLE 10
MISCELLANEOUS

10.1 Relationship of the Parties. Unless as otherwise agreed in writing, each Party shall bear its own costs incurred in the performance of its obligations under this Agreement without charge or expense to the other except as expressly provided in this Agreement. No employee or representative of a Party shall have any authority to bind or obligate the other Party to this Agreement for any sum or in any manner whatsoever, or to create or impose any contractual or other liability on the other Party without said Party's approval. For all purposes, and notwithstanding any other provision of this Agreement to the contrary, each of the Parties' legal relationship under this Agreement to the other Party shall be that of independent contractor.

10.2 Registration and Filing of this Agreement. To the extent, if any, that either Party concludes in good faith that it or the other Party is required to file or register this Agreement or a notification thereof with any Governmental Authority including, without limitation, the U.S. Securities and Exchange Commission or the U.S. Federal Trade Commission, in accordance with law, such Party shall inform the other Party thereof. Should both Parties jointly agree that either of them is required to submit or obtain any such filing, registration or notification, they shall cooperate, each at its own expense, in such filing, registration or notification and shall execute all documents reasonably required in connection therewith. In such filing, registration or notification, the Parties shall request confidential treatment of sensitive provisions of this Agreement, to the extent permitted by applicable law. The Parties shall promptly inform each other as to the activities or inquiries of any such Governmental Authority relating to this Agreement, and shall reasonably cooperate to respond to any request for further information therefrom on a timely basis.

10.3 Governing Law/Disputes. This Agreement and all other disputes, difference and Claims arising out of or in connection with this Agreement or the respective rights of the Parties under this Agreement shall be construed and governed in all respects, and the respective rights of the Parties determined, according to the prevailing substantive laws of the State of [*], without regard to its conflict of laws principles. The Parties agree that, differences and Claims of any kind whatsoever arising out of or in connection with this Agreement or the respective rights of the Parties under this Agreement (other than disputes under Section 4.2, which shall be resolved in accordance with the procedures set forth under Section 4.2), either Party shall have the right to seek recourse and to pursue any and all legal and equitable remedies at its disposal with respect to such disputes, differences or claims. In the event any such action shall be brought to enforce or interpret the terms of this Agreement in accordance with this Section 10.3, the Parties agree that such action will be brought in the State or Federal courts located in [*]. Each of [*] and KemPharm hereby irrevocably submits with regard to any action or proceeding for itself and in respect to its property, generally and unconditionally, to the exclusive jurisdiction of the

aforesaid courts. Each of [*] and KemPharm hereby irrevocably waives, and agrees not to assert, by way of motion, as a defense, counterclaim or otherwise, in any action or proceeding with respect to this Agreement, (a) any claim that it is not personally subject to the jurisdiction of the above-named courts for any reason other than the failure to lawfully serve process, (b) that it or its property is exempt or immune from jurisdiction of any such court or from any legal process commenced in such courts (whether through service of notice, attachment prior to judgment, attachment in aid of execution of judgment, execution of judgment or otherwise), and (c) to the fullest extent permitted by applicable law, that (i) the suit, action or proceeding in any such court is brought in an inconvenient forum, (ii) the venue of such suit, action or proceeding is improper, and (iii) this Agreement, or the subject matter hereof, may not be enforced in or by such courts.

10.4 Assignment. Except as provided in this Section 10.4, this Agreement may not be assigned to any Third Party by either Party, whether by operation of law or otherwise, without the prior written consent of the other Party; provided, however, that either Party may assign its rights under this Agreement, in whole or in part, without the prior written consent of the other Party to any of its Affiliates, KemPharm may assign its obligations under this Agreement to a wholly-owned subsidiary pursuant to a 355 Spin-off Transaction, and either Party may assign its rights and obligations under this Agreement, in whole, to any purchaser of all or a substantial part of its assets or business, whether by merger, consolidation, reorganization, or sale of stock, subject to the provisions of Sections 4.2. The assignment of a Party's rights under this Agreement in accordance with this Section 10.4 shall be contingent on the delivery of the assigning Party and its Affiliate or Third Party to the other Party of a guarantee of the performance of this Agreement in a form reasonably satisfactory to the other Party. Any purported assignment or transfer in violation of this Section 10.4 shall be void ab initio and of no force or effect. This Agreement shall be binding upon, and subject to the terms of the foregoing sentence, inure to the benefit of the Parties hereto, their permitted successors, legal representatives and assigns.

10.5 Notices. All demands, notices, consents, approvals, reports, requests and other communications hereunder must be in writing and shall be deemed to have been duly given only if delivered personally, by facsimile or email transmission with confirmation of receipt, by mail (first class, postage prepaid), or by overnight delivery using a globally-recognized carrier, to the Parties at the following addresses:

[*]

KemPhann: KemPharm, Inc.
7 Hawkeye Drive
Suite 103
North Liberty, Iowa 52317
Attn: President
Telephone: 319-665-2575
Facsimile: 319-665-2577
Email: tcmickle@kempharm.com

or to such other address as the addressee shall have last furnished in writing in accord with this provision to the addressor. If a demand, notice, consent, approval, report, request and other communication has been properly sent or delivered in accordance with this clause, it will be

deemed to have been received as follows: if delivered personally, at the time of delivery; or if sent by fax, at the time of transmission; or if sent by e-mail, at the time of transmission; if sent by mail, 9:00 am on the fourth Business Day after posting; or if delivered by commercial courier, on the date and at the time of signature of the courier's receipt; or if delivered by overnight delivery using a globally-recognized carrier, 9:00 am on the second working day after posting.

For the purposes of this clause all times are to be read as local time in the place of deemed receipt; and if deemed receipt under this clause is not within business hours (meaning 9:00 am to 5:30 pm Monday to Friday on a day that is not a public holiday in the place of receipt), the demand, notice, consent, approval, report, request and other communication is deemed to have been received when business next starts in the place of receipt.

10.6 Severability. In the event of the invalidity of any provisions of this Agreement or if this Agreement contains any inconsistencies, the Parties agree that such invalidity or inconsistency shall not affect the validity of the remaining provisions of this Agreement. The Parties will replace an invalid provision or correct any inconsistency with valid provisions which most closely approximate the purpose and economic effect of the invalid provision or, in case of an inconsistency, the Parties' presumed intentions. In the event that the terms and conditions of this Agreement are materially altered as a result of the preceding sentences, the Parties shall renegotiate the terms and conditions of this Agreement in order to resolve any inequities. Nothing in this Agreement shall be interpreted so as to require either Party to violate any laws.

10.7 Headings. The headings used in this Agreement have been inserted for convenience of reference only and do not define or limit the provisions hereof.

10.8 Waiver. Any term or condition of this Agreement may be waived at any time by the Party that is entitled to the benefit thereof, but no such waiver shall be effective unless set forth in a written instrument duly executed by or on behalf of the Party waiving such term or condition. No waiver by any Party of any term or condition of this Agreement, in any one or more instances, shall be deemed to be or construed as a waiver of the same or any other term or condition of this Agreement on any future occasion. Except as expressly set forth in this Agreement, all rights and remedies available to a Party, whether under this Agreement or afforded by law or otherwise, will be cumulative and not in the alternative to any other rights or remedies that may be available to such Party.

10.9 Entire Agreement. This Agreement (including the exhibits hereto, which by this reference are incorporated herein and made a part hereof as if set forth verbatim) constitutes the entire agreement between the Parties hereto with respect to the within subject matter and supersedes all previous agreements and understandings between the Parties, whether written or oral, including, without limitation but subject to the rights of [*] under Section 2.4 above, the CLA. Any and all confidential or proprietary information exchanged between the Parties pursuant to the CLA, the Confidentiality Agreement executed and delivered as of [*], and that certain agreement between the Parties dated [*] and amended on [*], shall be deemed Confidential Information for purposes of and covered by the terms of this Agreement. This Agreement may be altered, amended or changed only by a writing making specific reference to this Agreement and signed by duly authorized representatives of the Parties.

10.10 Third Party Beneficiaries. With the exception of either Party's Affiliates, and with the additional exception of Shire's rights with respect to the Shire Release, none of the provisions of this Agreement shall be for the benefit of or enforceable by any Third Party, including without limitation any creditor of either Party hereto. No such Third Party shall obtain any right under any provision of this Agreement or shall by reasons of any such provision make any Claim in respect of any debt, liability or obligation against either Party hereto. The rights of the Parties to terminate, rescind or agree any variation, waiver or settlement under this Agreement is not subject to the consent of any Third Party that is not a party to this Agreement.

10.11 Counterparts; Facsimile Signatures. This Agreement may be executed in multiple counterparts, all of which, when executed, shall be deemed to be an original and all of which together shall constitute one and the same document. Signatures provided by facsimile transmission shall be deemed to be original signatures.

[Signature Page Follows]

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

IN WITNESS WHEREOF, the Parties have entered into this Agreement as of the Effective Date.

[*]	KEMPHARM, INC.
By: [*]	By: /s/ Travis Mickle Travis Mickle, president and CEO

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT A

Shire Release

23.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Shire LLC
9200 Brookfield Court
Florence, Kentucky
Telephone 800-828-2088

EXECUTION COPY

March 20, 2012

[* 4 pages of text omitted]

Very truly yours,
Shire LLC

By: _____
Name: Mike Chapman, President
Title: _____
Date: _____

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

ACKNOWLEDGED AND AGREED:
[*]
Date: _____
,

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT B

VALUATION TERMS

Any valuation conducted pursuant to Section 4.2 shall be in accordance with the following:

1. Any valuation expert utilized for the purposes of assessing and/or determining Value associated with KP415 pursuant to Section 4.2 shall be at least a credentialed partner or director from a certified public accounting firm or investment bank with which neither Party (nor their Affiliates) has had any past, material relationship. The Parties agree that any determination of the Value reasonably attributable to the KemPharm Sale Price by such independent valuation experts shall be conducted as a valuation engagement as defined by the Statement on Standards for Valuation Services (SSVS) of the American Institute of Certified Public Accountants and in accordance with SSVS. The determination of Value resulting from the valuation engagement shall be expressed as a conclusion of value as defined by SSVS and, as it relates to the all of the valuation experts performing such valuation, communicated in a detailed report as defined by SSVS.

2. Notwithstanding the requirements of SSVS, the valuation expert, at a minimum, shall consider the following with respect to KP415:

[*]

3. Notwithstanding the requirements of SSVS, the valuation expert, at a minimum, shall consider criteria substantially similar to the above paragraphs 2.A-I, with respect to each of the other assets included in the KemPharm Sale Transaction.

4. The valuation expert shall assign a valuation of the overall portfolio of tangible and intangible assets that are included the KemPharm Sale Transaction as a going concern, taking into consideration the individual value of each of such tangible and intangible assets.

5. Each of the Parties agree that it shall provide to the valuation expert a copy of this provision for instruction in connection with such independent valuation expert’s determination of the Value.

[*] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

KEMPHARM, INC.
INCENTIVE STOCK PLAN

1. ***Purpose***. The KemPharm, Inc. Incentive Stock Plan (the "Plan") is intended to secure for KemPharm, Inc., a Iowa corporation (the "Company") and its shareholders the benefits of the incentive inherent in common stock ownership by the employees and directors of, and consultants to, the Company or of any parent or subsidiary (as defined in Sections 424(e) and (f) of the Internal Revenue Code of 1986 and referred to hereinafter as "Affiliates") who are largely responsible for the future growth and financial success of the Company; and to afford such persons the opportunity to obtain or increase a proprietary interest in the Company on a favorable basis.

2. ***Administration***. The Plan shall be administered by the Board of Directors of the Company (the "Board"); provided, however, that the Board may delegate administration of the Plan to a Committee as provided in this Section 2. (The administrator of this Plan, whether such administrator is the Board and/or a Committee, is referred to herein as the "Administrator".)

   Subject to the provisions of the Plan, the Board shall have exclusive authority to interpret and administer the Plan, to select persons eligible to participate in the Plan, to grant Incentive Stock Options, Non-Qualified Stock Options and Incentive Stock in accordance with the Plan, to establish the timing, pricing, amount and other terms and conditions of such grants (which need not be uniform with respect to the various participants or with respect to different grants to the same participant), to establish appropriate rules relating to the Plan, and to take all such steps and make all such determinations in connection with the Plan and the Incentive Stock Options, the Non-Qualified Stock Options and the Incentive Stock granted pursuant to this Plan as the Board may deem necessary or advisable and consistent with the terms set forth herein. The Board shall determine the form or forms of the agreements with Participants that shall evidence the particular provisions, terms, conditions, rights and duties of the Company and the Participant(s) with respect to each grant of Benefits (defined below). The Board may from time to time adopt such rules and regulations for carrying out the purposes of the Plan as it may deem proper and in the Company's best interests. The Board may correct any defect, supply any omission or reconcile any inconsistency in the Plan or in any agreement entered into hereunder in the manner and to the extent the Board shall deem expedient and shall be the sole and final judge of such expediency.

   The Board may appoint a committee (the "Committee") consisting of not less than two (2) persons to administer this Plan on behalf of the Board, subject to such terms and conditions as the Board may prescribe which are not inconsistent with this Plan. Once appointed, the members of the Committee shall continue to serve until otherwise directed by the Board. Members of the Board who are either eligible for the grant or have been granted Benefits may vote on any matters affecting the administration of this Plan or the grant of any Benefits pursuant to this Plan, except that no such member shall act upon the granting of an Benefits to such member, but any such member may be counted in determining the existence of a quorum at any meeting of the Board during which action is taken with respect to the granting of Benefits to such member. If a Committee is appointed, the Committee shall select Participants from eligible person and shall determine the Benefits to be granted pursuant to the Plan and the terms and conditions thereof.

3. ***Eligibility***. The Administrator shall from time to time determine and designate the employees, directors and consultants of the Company and its Affiliates who shall be Participants in the Plan; and the number of Incentive Stock Options, Non-Qualified Stock Options and Incentive Stock to be awarded to each such Participant. In making any such award, the Administrator may take into account the nature of services rendered by a Participant, the capacity of the Participant to

contribute to the success of the Company, and other factors that the Administrator may consider relevant. Notwithstanding the preceding, an Incentive Stock Option may be granted only to an individual who, at the time the Option is granted, is an employee of the Company or an Affiliate.

4. ***Types of Benefits***. Benefits under the Plan may be granted in any one or any combination of

   (a) Incentive Stock Options;

   (b) Non-Qualified Stock Options; and

   (c) Incentive Stock,

   as described in the Plan ("Benefits").

   The Administrator may: (a) make the grant of Benefits conditional upon an election by a Participant to defer payment of a portion of his salary; (b) give a Participant a choice between two Benefits or combinations of Benefits; (c) award Benefits in the alternative so that acceptance of or exercise of one Benefit cancels the right of a Participant to another; and (d) award Benefits in any combination or combinations and subject to any condition or condition consistent with the terms of the Plan that the Administrator in its sole discretion may determine.

5. ***Shares Subject to Plan***. Subject to the provisions of Section 8 (relating to adjustment for changes in capital stock), the maximum number of shares that may be issued under this Plan shall not exceed in the aggregate of six million (6,000,000) shares of the Class A Common Stock of the Company ("Common Stock"). Such shares may be unissued shares, or issued shares that have been reacquired. If any incentive Stock Options or Non-Qualified Stock Options granted under the Plan shall for any reason terminate or expire, or be surrendered without having been exercised in full, the shares not purchased under such options shall be available again for option or grant under the Plan. If any Incentive Stock is forfeited prior to the end of a restricted period, such Incentive Stock shall be available again for option or grant under the Plan.

6. ***Stock Options***. A stock option is a right to purchase up to a designated number of shares of Common Stock at a designated price per share during a designated period.

   The Administrator from time to time may grant options ("Options") to Participants to purchase shares of Common Stock from the Company. An Option may be granted in the form of an "Incentive Stock Option," which is intended to qualify as an incentive stock option within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), or in the form of a "Non-Qualified Stock Option," which is not intended to qualify as an incentive stock option within the meaning of Section 422 of the Code. Each Option agreement between the Company and a Participant shall be in such form and shall contain such provisions as the Administrator from time to time shall deem appropriate. Option agreements need not be identical, but each option agreement shall include the substance of all of the provisions set forth in subsections (a) through (h) below:

   (a) An Option (i) shall not be transferable by the individual to whom granted except by will or by the laws of descent and distribution; and (ii) may be exercised during the individual's lifetime only by such individual or, in the case of a Non-Qualified Option, such individual's guardian or legal representative.

   (b) The Administrator in its discretion may provide in any Option agreement that the Option shall be exercisable in full at any time or from time to time during the term of the Option, or may provide for the exercise of the Option in such installments and at such times during the term of the Option as the Administrator may determine.

(c) The maximum term of an Option shall be ten years from the date it was granted, except that the maximum term of an Incentive Stock Option granted to a person who owns more than ten percent (10%) of the total combined voting power of all classes of the stock of the Company shall be five years.

(d) The purchase price of the shares covered by each Option shall be not less than 100% of the fair market value of the stock subject to the Option at the time the Option is granted (110 % if the Option is an Incentive Stock Option and the recipient owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company). The "fair market value" of a share of Common Stock shall be deemed to be (i) if traded on a securities exchange or The NASDAQ Stock Market, the closing price on the relevant date, or (ii) if actively traded over-the-counter, the closing bid price or. the relevant date, or (iii) if there is no active public market, such price that is reasonably determined by the Plan Administrator in good faith.

(e) The aggregate fair market value (as determined by the Administrator as of the time an Incentive Stock Option is granted) of the Common Stock covered by an Incentive Stock Option awarded a Participant under the Plan that becomes exercisable for the first time during any calendar year shall not exceed One Hundred Thousand Dollars ($100,000.00) or such other maximum applicable to Incentive Stock Options as may be in effect from time to time under the Code.

(f) No Incentive Stock Option shall be awarded after the day preceding the tenth anniversary of the effective date of the Plan.

(g) No person entitled to exercise any Option granted under the Plan shall have any of the rights or privileges of a shareholder of the Company with respect to shares issuable upon exercise of such Option until certificates representing such shares shall have been issued and delivered to such person.

(h) An Incentive Stock Option may be granted only to a person who is an employee of the Company or any Affiliate at the time of the grant.

7. ***Incentive Stock***. Incentive Stock consists of Common Stock that is granted to a Participant. Each grant of Incentive Stock shall be in such form and subject to such terms, conditions and agreements as the Administrator from time to time shall deem appropriate. Grants of Incentive Stock need not be identical. The Administrator may make an award of "phantom stock credits" to any Participant which shall serve as a basis for an award of Incentive Stock at a later point in time.

8. ***Adjustment Upon Changes in Stock***. If any change is made in the shares of Common Stock of the Company by reason of any merger, consolidation, reorganization, recapitalization, stock dividend, split up, combination of shares, exchange of shares, change in corporate structure, or otherwise, appropriate adjustments shall be made by the Administrator to the kind and maximum number of shares subject to the Plan and the kind and number of shares and price per share of stock subject to each outstanding Benefit. Any increase in the shares, or the right to acquire shares, as the result of such an adjustment shall be subject to the same terms and conditions that apply to the Benefit for which such increase was received. No fractional shares of Common Stock shall be issued under the Plan on account of any such adjustment, and rights to shares always shall be limited after such an, adjustment to the lower full share.

9. ***Amendment of the Plan***. The Board of Directors of the Company may at any time amend the Plan, provided that the Board may not, without approval (within twelve months before or after the

date of such change) of such number of the stockholders as may be required by federal income tax or federal securities laws for any particular amendment: (a) increase the maximum number of shares of Common Stock in the aggregate which may be issued under the Plan, except as may be permitted under the adjustment provisions of Section 8, or (b) adopt any other amendment for which shareholder approval is required by federal income tax or federal securities laws. The Board of Directors may not alter or impair any Benefit previously granted under the Plan without the consent of the person to whom the Benefit was granted.

10. ***Termination of the Plan***. The Plan shall terminate upon the expiration of the ten year period which commences on the earlier of (a) the date the Plan is adopted by the Board of Directors of the Company, or (b) the date on which the Plan is approved by the stockholders of the Company; provided, however, that the Board of Directors may terminate or suspend the Plan at any time. No Benefit shall be awarded after termination of the Plan.

    Rights and obligations under a Benefit awarded while the Plan is in effect shall not be altered or impaired by termination or suspension of the Plan except by consent of the person to whom the Benefit was awarded.

11. ***Withholding Tax***. The Company shall have the right to withhold with respect to any distribution made to Participants under the Plan any taxes required by law to be withheld because of such distribution (the "Tax Requirements"). The Administrator may require or permit a Participant to satisfy any Tax Requirements with Company stock. If the Administrator permits a Participant to satisfy the Tax Requirements in Company stock, the election by a Participant to do so shall be made prior to the date the withholding obligation arises (the "Tax Date"), shall be irrevocable and shall be subject to the disapproval of the Administrator.

12. ***Rules of Construction***. The terms of the Plan shall be construed in accordance with the laws of the State of Iowa, provided that the terms of the Plan as they relate to Incentive Stock Options shall be construed first in accordance with the meaning under and in a manner that will result in the Plan satisfying the requirements of the provisions of the Code governing incentive stock options.

13. ***Nontransferability***. Each Option or similar right granted under this Plan shall not be transferable other than by will or the laws of descent and distribution, and shall be exercisable during the holder's lifetime only by the holder or the holder's guardian or legal representative.

14. ***Effective Date***. The Plan shall become effective as of the date it is adopted by the Board of Directors of the Company subject only to approval by the holders of a majority of the outstanding voting stock of the Company within twelve months before or after the adoption of the Plan by the Board of Directors.

THE STOCK OPTION EVIDENCED BY THIS AGREEMENT HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS AND MAY NOT BE SOLD OR OTHERWISE TRANSFERRED EXCEPT AS PERMITTED UNDER SECTION 10 OF THIS AGREEMENT

KEMPHARM, INC.
INCENTIVE STOCK OPTION AGREEMENT

THIS KEMPHARM, INC. INCENTIVE STOCK OPTION AGREEMENT is entered into by and between **KEMPHARM, INC.,** an Iowa corporation with its principal office at 2656 Crosspark Road, Suite 100, Coralville, IA 52241, and , whose address is set forth beneath the Participant's signature page hereto.

Grant Date: _____

Exercise Price per Share: _____

Number of Option Shares: _____

Expiration Date: _____

1. DEFINITIONS. As used in this Agreement, the following capitalized terms have shall the following meanings. Capitalized terms used but not defined in this Agreement shall have the meaning ascribed to them in the Plan.

(a) Agreement. "Agreement" means this Non-qualified Stock Option Agreement.

(b) Cause. "Cause" means: (1) if the Participant is a party to an employment or service agreement with the Company or its Affiliates and such agreement provides for a definition of Cause, the definition contained therein; or (2) if no such agreement exists, or if such agreement does not define Cause: (i) acts of willful malfeasance, gross misconduct or neglect with respect to the performance of the Participant's duties and responsibilities as an employee, consultant, officer or director of the Company or its Affiliates, (ii) conduct that results in or is reasonably likely to result in harm to the reputation or business of the Company or any of its affiliates, (iii) the commission of, or plea of guilty or no contest to, a crime constituting a felony, or (vi) the material breach of any contractual obligation to the Company which is not remedied within the time specified under the contract at issue.

(c) Change of Control. "Change of Control" means the occurrence of any of the following:

(1) the acquisition by any person, or group of persons acting in concert (other than the Company or any Affiliate), of beneficial ownership (as determined under Rule 13d-3 of the Exchange Act) of 50.01% or more (on a fully diluted basis) of the then-Outstanding Company Common Stock and/or the then-Outstanding Company Voting Stock (a "Stock Sale"; or

(2) the direct or indirect sale, transfer, license, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of the Company and its subsidiaries, taken as a whole, to any person, or group of persons acting in concert, that is not a subsidiary of the Company (an "Asset Sale"); or

(3) the consummation of a reorganization, merger, consolidation, statutory share exchange or similar form of corporate transaction involving the Company that requires the approval of the Company's shareholders, whether for such transaction or the issuance of securities in the transaction (a "Business Combination");

provided, however, that a Stock Sale, Asset Sale or Business Combination shall not constitute a Change of Control if immediately following such Stock or Asset Sale or Business Combination at least 50.01% of the total voting power eligible to elect at least a majority of the directors of (A) the purchasing entity in such Stock or Asset Sale, or the entity resulting from such Business Combination (in each case the "Surviving Company"), or (B) if applicable, the ultimate parent entity that directly or indirectly has beneficial ownership of sufficient voting securities eligible to elect a majority of the members of the board of directors (or the analogous governing body) of the Surviving Company (the "Parent Company"), is represented by the Outstanding Company Voting Stock that was outstanding immediately prior to such Stock or Asset Sale or Business Combination (or, if applicable, is represented by shares into which the Outstanding Company Voting Stock were converted pursuant to such Stock or Asset Sale or Business Combination), and such voting power among the holders thereof is in substantially the same proportion as the Outstanding Company Voting Securities among the holders thereof immediately prior to the Stock or Asset Sale or Business Combination.

(d) Company. "Company" means KemPharm, Inc.

(e) Continuous Service. "Continuous Service" for the Company means the Participant's performance, without interruption or termination, of ongoing services to the Company or any Affiliate in the capacity of an (i) employee, (ii) officer, (iii) member of the Board, (iv) consultant pursuant to a written consultant or services agreement, or (v) member of an advisory board of the Company.

(f) Exchange Act. The "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(g) Exercise Agreement. "Exercise Agreement" has the meaning ascribed to it in Section 6(a) hereof.

(h) Exercise Price. "Exercise Price" means the price per share at which the Option may be exercised to purchase Option Shares.

(i) Expiration Date. "Expiration Date" means the expiration date set forth above.

(j) Holder. "Holder" means the Participant and the Participant's permitted assigns and successors in interest.

(k) Net Exercise. "Net Exercise" has the meaning ascribed to it in Section 6(c).

(l) Option. "Option" means the option to purchase up to the maximum number of Option Shares granted under this Agreement to the Holder.

(m) Option Shares. "Option Shares" means the shares of Common stock which the Holder may purchase by exercise of the Option (subject to adjustment and substitution pursuant to Section 7).

(n) Outstanding Company Common Stock. "Outstanding Company Common Stock" means, at any given time, the outstanding shares of Common Stock taking into account as outstanding for this purpose such Common Stock issuable upon the exercise of options or warrants, the conversion of convertible stock or debt, and the exercise of any similar right to acquire such Common Stock.

(o) Outstanding Company Voting Stock. "Outstanding Company Voting Stock" means, at any given time, the then-outstanding voting securities of the Company entitled to vote generally in the election of at least a majority of the Company's directors, taking into account as outstanding for this purpose such voting securities as are issuable upon the exercise of options or warrants, the conversion of convertible stock or debt, and the exercise of any similar right to acquire such voting securities.

(p) Participant. “Participant” means the individual named in the first unnumbered paragraph of this Agreement.

(q) Plan. The “Plan” means the Company’s Incentive Stock Plan, a copy of which has been made available to the Participant, as may be amended by the Company at any time, in its discretion.

(r) Securities Act. “Securities Act” means the Securities Act of 1933, as amended.

(s) Service Termination Date. “Service Termination Date” means the effective date of the termination of the Participant’s Continuous Service.

(t) Stock Certificate. “Stock Certificate” means a certificate issued by the Company representing the ownership of the Option Shares purchased by the exercise of the Option.

(u) Tax-Related Items. “Tax-Related Items” has the meaning ascribed to it in Section 14.

2. GRANT OF INCENTIVE STOCK OPTION.

(a) Grant of Option. The Company hereby grants to the Holder the Option to purchase up to the total number of shares set forth above of Common Stock at the Exercise Price. The effective date of the grant of the Option is the date set forth above. The grant of the Option is made pursuant to and subject to the terms and conditions of Plan, which may be amended from time to time, as well as the terms and conditions set forth in this Agreement.

(b) Type of Grant. The Option is intended to be an incentive stock option within the meaning of Code Section 422, although the Company makes no representation or guarantee that the Option will qualify as an incentive stock option. To the extent that the fair market value (determined on the effective date of the grant) of the shares of Common Stock with respect to which incentive stock options are exercisable for the first time by the Participant during any calendar year (under al plans of the Company and its Affiliates) exceeds $100,000, the Option or the portion thereof which exceeds such limit shall be treated as a non-qualified stock option.

(c) Consideration. The grant of the Option is made in consideration of the Continuous Service to be rendered by the Participant to the Company. The Administrator shall determine, in its sole discretion, whether Continuous Service shall be considered interrupted and the effective date of any termination in the Participant’s Continuous Service and the Service Termination Date.

3. EXERCISE PRICE. The Exercise Price at which the Option may be exercised is the exercise price set forth above, which is equal to the fair market value of a share of Common Stock as of the effective date of the grant of the Option. The exercise price established pursuant to the preceding sentence shall be adjusted from time to time pursuant to Sections 7 and 8(b) hereof. For all purposes of this Agreement, the fair market value, at any given time, of a share of Common Stock shall be determined by the Administrator in accordance with the terms and conditions of the Plan.

4. VESTING.

(a) Vesting Schedule. Subject to Section 8(a), the Holder's right to purchase the Option Shares will become vested, such that the Holder shall have the vested right to purchase such Option Shares by exercise of the Option in accordance with the following schedule:

(1) [As determined by the Board of Directors]

(2) [As determined by the Board of Directors]

(b) Unvested Portion of the Option. At any given time, the Holder may exercise only the vested portion of the Option, and may not exercise the portion of the Option which is unvested. Upon the Participant's Service Termination Date for any reason, the portion of the Option which is not vested as of such date shall be immediately forfeited.

5. EXPIRATION.

(a) Expiration Date. The Option will expire and all rights of the Holder granted hereunder will become null and void at the close of business on the Expiration Date or earlier as provided in this Agreement or the Plan.

(b) Termination of Continuous Service without Cause. If the Participant's Continuous Service terminates for any reason other than death or removal for Cause, then the Holder may exercise the vested portion of the Option (determined as of the Service Termination Date), in whole or in part, but only within such period of time ending on the earlier of (1) the date ninety (90) days following the Service Termination Date, or (2) the Expiration Date.

(c) Termination due to Death. If the Participant's Continuous Service terminates as a result of the Participant's death, then the parties identified in this Section 5(c) may exercise the vested portion of the Option (determined as of the Service Termination Date), in whole or in part, but only within such period of time ending on the earlier of (1) the one year anniversary of the Service Termination Date or (2) the Expiration Date. The parties who may exercise the Option pursuant to this Section 5(b) shall be (i) the court-appointed representative of the Participant's estate, (ii) if the Participant's estate is administered with a will, by the persons or persons to whom the Participant's rights in the Option pass under such will, or (iii) if the Participant's estate is administered intestate, by the person or persons to whom the Participant's rights in the Option pass under the applicable intestacy laws. Any person exercising the Option pursuant to this Section 5(b) shall demonstrate to the satisfaction of the Company that he or she has sufficient power and authority under applicable state law to exercise the Option.

(d) Termination for Cause. If the Participant's Continuous Service is terminated by the Company or any Affiliate for Cause, then the Option (whether vested or unvested) shall immediately terminate and cease to be exercisable as of the Service Termination Date. The Administrator, in its absolute discretion, shall determine the effect of all matters and questions relating to whether the Participant was discharged for Cause.

(e) Breach of Contract. Notwithstanding the forgoing, if at any time following the Service Termination Date, the Administrator determines, in its absolute discretion, that the Participant has materially breached any of the Participant's obligations to the Company pursuant any written agreement between the Company and the Participant, then the entire Option shall be forfeited immediately as of the date of such determination by the Administrator, and the Holder may thereafter not exercise any portion of the Option.

6. MANNER OF EXERCISE.

(a) Election to Exercise. To exercise the Option, the Holder must deliver to the Company an executed stock option exercise agreement in such form as is approved by the Administrator from time to time (the "Exercise Agreement"), which shall set forth the Holder's election to exercise the Option, the number of Option Shares being purchased, any restrictions imposed on the Option Shares, and any representations, warranties, and agreements regarding the Holder's investment intent and access to information as may be required by the Company, in its discretion, to comply with applicable securities laws. If someone other than the Participant exercises thee Option, then such person must submit documentation reasonably acceptable to the Company verifying that such person has the legal right to exercise the Option.

(b) Cash Exercise. Unless the Holder elects to exercise the Option on a Net Exercise basis in accordance with Section 5(c) hereof, the Holder must pay in cash or check at the time the Option is exercised an amount equal to the aggregate Exercise Price for the number of Option Shares being purchased.

(c) Net Issue (Cashless Exercise) Election. In lieu of exercising the Option to purchase the Options Shares on a cash basis, the Holder may elect to receive, without the payment by the Holder of any additional consideration, shares of Common Stock equal to the value of the Option Shares or any portion thereof (the "Net Exercise"). Upon exercise of the Option on a Net Exercise basis, the Company will issue to the Holder such number of fully paid and nonassessable shares of Common Stock as is equal to the difference of the total number of Options Shares with respect to which the Net Exercise is made minus a number of shares with an aggregate fair market value equal to the aggregate Exercise Price at the time of exercise. The Board will promptly respond in writing to an inquiry by the Holder as to the fair market value of one share of Common Stock.

(d) No Fractional Shares. No fractional shares of Common Stock may be purchased by exercise of the Option, and when any provision hereof may entitle the Participant to a fractional share, such fraction shall be disregarded.

(e) Partial Exercises. A partial exercise of the Option to purchase less than the entire vested portion of the Option shall not affect the Holder's rights to exercise the Option with respect to the remainder of the vested portion of the Option, subject to the terms and conditions of the Plan and this Agreement.

(f) Effective Date of Issuance. The Option Shares acquired upon exercise of the Option shall be deemed to be issued as of the close of business on the date on which the Company receives from the Holder the duly executed Exercise Agreement and, except in the case of a Net Exercise purchase, payment in cash or by check in the amount equal to the aggregate Exercise Price for the Option Shares being, or such later date as is stated in the Exercise Agreement, which shall in any event be not more than thirty (30) days following the date on which the Exercise Agreement is delivered to the Company; provided that if any law or regulation requires the Company to take any action with respect to the Option Shares to be purchased before the Company's issuance of such shares, then the date of issuance of such Option Shares shall be extended for the period necessary to take such action, and further provided that the Holder has made appropriate arrangements with the Company for any applicable Federal, state and local taxes withholding required by law.

(g) Withholding Taxes. If the Company, in its discretion, determines that it is obligated to withhold any tax in connection with the exercise of the Option, the Holder must make arrangements satisfactory to the Company to pay or provide for any applicable federal, state and local withholding obligations. The Participant may satisfy any federal, state or local withholding obligation relating to the exercise of the Option by any of the following means: (1) tendering a cash payment; (2) authorizing the Company to withhold shares of Common Stock otherwise issuable to the Holder as a result of the exercise of the Option; provided, however, that no shares of Common Stock are withheld

with a value exceeding the minimum amount of tax required to be withheld by law; or (c) delivery to the Company of previously owned and unencumbered shares of Common Stock. The Company has the right to withhold from any compensation paid to the Participant.

7. Adjustments upon Stock Dividends, Etc. In the event of changes in the outstanding Common Stock or in the capital structure of the Company by reason of any stock dividend, stock split, reverse stock split, an extraordinary corporate transaction such as any recapitalization, reorganization, merger, consolidation, combination, exchange, or other relevant change in the Company's capitalization after the effective date of the grant of the Option, the Administrator shall, in its absolute discretion, equitably adjust or substitute the Exercise Price and the maximum number and kind of shares of capital stock for which the Option may be exercised to the extent necessary to preserve the original economic intent of the grant of the Option. In the case of any adjustment pursuant to this Section 7, unless the Administrator specifically determines, in its absolute discretion, that such adjustment is in the best interests of the Company or its Affiliates, the Administrator shall ensure that such adjustment (i) will not constitute a modification of the Option within the meaning of Code Section 409A, and (ii) will be made in a manner which does not adversely affect any applicable exemption provided pursuant to Rule 16b-3 under the Exchange Act. The Company shall give the Holder notice of an adjustment pursuant to this Section 7, and, upon notice, such adjustment shall be conclusive and binding upon the Company and the Holder for all purposes.

8. Effect of Change in Control.

(a) Acceleration of Vesting. If a Change of Control occurs prior to the Service Termination Date, notwithstanding any other provision of this Agreement to the contrary, the Holder's right to purchase the Option Shares will become immediately 100% vested and exercisable. To the extent practicable, such acceleration of vesting and exercisability shall occur in a manner and at a time which allows the Participant the ability to participate in the Change of Control with respect to the shares of Common Stock received upon exercise of the Option.

(b) Cash-out. In the event of a Change of Control, the Administrator, in its discretion and upon at least 10 days' advance notice to the Holder, cancel the Option and pay to the Holder the value of the Option (treated as if the Option was 100% vested at such time) based upon the price per share of Common Stock received or to be received by other shareholders of the Company in the event.

(c) Determination. The Administrator, in its absolute discretion, shall determine the effect of all matters and questions relating to whether a Change of Control has occurred.

9. Shareholder Rights upon Exercise.

(a) Delivery of Certificates. As soon as practical after the effective date of issuance of Option Shares purchased by exercise of the Option, in accordance with section 6(f) hereof, the Company will cause to be issued in the name of and delivered to the Holder, or as otherwise directed in the duly executed Exercise Agreement, one or more Stock Certificates representing the purchased Option Shares. The Stock Certificate shall contain such restrictive legends or other conditions and restrictions governing the disposition of the Shares as may be reasonably required by this Agreement, the Company's articles of incorporation and bylaws, applicable securities laws or any other law or regulation. The Company shall have the sole discretion to determine whether a legend, restriction or condition is reasonable in light of the facts and circumstances involved in each situation.

(b) Shareholder Status. The Holder shall have no rights or privileges of a shareholder of the Company with respect to any of the Option Shares issuable on the exercise of this Option unless and until the Company has issued and delivered to the Holder one or more Stock Certificates.

(c) Shareholder Agreements. Immediately upon exercise of the Option, the Participant shall be subject to all the terms and conditions of any shareholders' agreement (or similar agreement) entered into by the Company's shareholders and in effect at that time. The Company may refuse to issue a Stock Certificate pursuant to this Agreement until the Holder signs and agrees to be bound by any such agreement.

10. Lock Up Agreement. The Holder agrees that, if so requested by the Company and an underwriter of securities of the Company pursuant to the registration of such securities under the Securities Act, the Holder shall not sell or otherwise transfer or dispose of any Option Shares purchased by exercise of the Option (other than those included in the registration) for a period specified by the underwriter not to exceed 180 days following the effective date of a registration statement of the Company filed under said Act, provided that: (a) such agreement shall apply to the Company's initial public offering only; and (b) all officers and directors of the Company enter into similar agreements. The obligations described in this Section 9 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Securities and Exchange Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the Shares (or other securities) subject to the foregoing restriction until the end of said 180 day period.

11. Nontransferability of Option. The Option has not been registered under the Securities Act. Neither this Option nor the rights and privileges conferred by this Agreement may be transferred, assigned, pledged or hypothecated in any manner (whether by operation of law or otherwise) other than by will or by the applicable laws of descent and distribution.

12. Transfer Restrictions on Stock Imposed by the Securities Act.

(a) Restriction on Transfer. Notwithstanding any other provision of this Agreement, no transfer for value of any shares of stock acquired upon exercise of the Option shall be valid unless (i) there is an effective registration statement under the Securities Act covering the stock issuable by exercise the Option; or (ii) the Holder has furnished the Company with an opinion of counsel satisfactory to the Company that such transfer will not violate the registration requirements of the Securities Act or any applicable state law regulating the sale of securities.

(b) Legend. The face of each certificate representing shares of stock issued upon the exercise of the Option shall bear a legend substantially similar to the following:

> THE SHARES OF STOCK REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR THE SECURITIES LAWS OF ANY STATE AND MAY NOT BE SOLD, TRANSFERRED OR PLEDGED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT UNDER SUCH ACT AND STATUTES UNLESS PRIOR TO ANY SALE, TRANSFER OR PLEDGE, THE ISSUER RECEIVES AN OPINION OF COUNSEL, IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, THAT THE REGISTRATION IS NOT REQUIRED UNDER SUCH ACT AND STATUTES AND THE RULES PROMULGATED THEREUNDER.

(c) Investment Intent. If there is not an effective registration statement under the Securities Act covering the shares of the stock to be issued by exercise of the Option, the Holder may acquire such shares upon exercise of the Option only for the Holder's own account and not with a view to, or for resale in connection with, any distribution thereof within the meaning of the Securities Act.

13. Continuation of Service. Nothing contained in this Agreement shall confer upon the Participant the right to be retained by the Company or its Affiliates, or upon the Company and its Affiliates the obligation to retain the Participant, in any position as an employee, consultant, officer or director of the

Company. Further, noting in the Plan or this Agreement shall be construed to limit or interfere in any way with the right of the Company or any of its Affiliates to reduce the Participant's compensation or to terminate Participant's Continuous Service at any time, with or without Cause.

14. Tax Liability and Withholding. Notwithstanding any action the Company takes with respect to any or all income tax, social insurance, payroll tax, or other tax-related withholding ("Tax-Related Items"), the ultimate liability for all Tax-Related Items is and remains the Holder's responsibility and the Company (a) makes no representation or undertakings regarding the treatment of any Tax-Related Items in connection with the grant, vesting, or exercise of the Option or the subsequent sale of any shares acquired on exercise; and (b) does not commit to structure the Option to reduce or eliminate the Participant's liability for Tax-Related Items. Further, the Holder understands and agrees that the Company shall not be liable or responsible for any additional tax liability the Holder incurs in the event that the Internal Revenue Service for any reason determines that this Option does not qualify as an incentive stock option within the meaning of the Code.

15. Disqualifying Disposition. The Holder understands that, in order to obtain the benefits of an incentive stock option, no sale or other disposition may be made of shares of Common Stock purchased by exercise of the Option for which incentive stock option treatment is desired within two (2) years from the effective date of the grant of this Option or one (1) year from the effective date of the shares are transferred to the Holder by exercise of the Option. If the Holder disposes of shares of Common Stock prior to the expiration of either of the aforementioned time periods, the Holder shall notify the Company in writing within thirty (30) days after such disposition of the date and terms of such disposition. The Holder also agrees to provide the Company with any information concerning any such dispositions as the Company requires for tax purposes.

16. No Impact on Other Benefits. The value of the Participant's Option is not part of the Participant's normal or expected compensation for purposes of calculating any severance, retirement, welfare, insurance or similar employee benefit.

17. Administration; the Plan. The Company shall have the authority to construe the terms of this Agreement and to prescribe rules and regulations relating to the administration of this Option. The terms and provisions of the Plan are incorporated herein by reference. To the extent any provision of this Agreement is inconsistent or in conflict with any term or provision of the Plan, the Plan shall govern.

18. Notice. All notices, demands and other communications shall be in writing and given via personal delivery, overnight, next-day or second-day delivery by a national delivery service, confirmed email, confirmed facsimile, or mailed through the U.S. postal service, proper postage prepaid to, in the case of the Company, addressed to the Company's principal office marked attention to the Company's president, or to the president's primary Company email address, and in the case of the Holder, addressed to the postal address or email address set forth beneath the Participant's signature hereto, and in each case to such other mail address, email address or facsimile number as may hereafter be furnished in writing by either party to the other party. Any such notice, demand or communication shall be deemed received by the addressee (i) upon actual receipt in the case of personal delivery or overnight, next-day or second-day delivery by a national delivery service, (ii) the next business day immediately following the date on which notice is transmitted, in the case of notice by confirmed email or facsimile, or (iii) in the case of notice mailed through the U.S. postal service, on the third business day following the deposit of such notice in the mail.

19. Governing Law; Jurisdiction. **This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Iowa. The litigation of any disputes arising out of this Agreement shall take place in the appropriate federal or state court located in Johnson County, Iowa. The parties, to the extent they can legally do so, hereby consent to service of process, and to be sued in the State of Iowa and consent to the exclusive jurisdiction of the courts of the**

State of Iowa and the United States District Court for the Southern District of Iowa, as well as to the jurisdiction of all courts to which an appeal may be taken from such courts, for the purpose of any suit, action or other proceeding arising out of any of their obligations hereunder or with respect to the transactions contemplated hereby, and expressly waive any and all objections they may have to venue in such courts.

20. Successors. The provisions of this Agreement shall be binding upon and inure to the benefit of (a) each Holder hereunder, the Participant's heirs, personal representatives, executors, estate administrators, successors and permitted assigns, and any receiver, trustee in bankruptcy or representative of creditors of a Holder, and (b) any successor corporation of the Company, or upon any successor corporation or organization succeeding to all or substantially all of the assets and business of the Company and its Affiliates, taken as a whole.

21. Entire Agreement. This Agreement, subject to the terms and conditions of the Plan, contain the entire understanding of the parties to this Agreement with respect to the grant of the Option hereunder, and supersedes and replaces all former agreements or understandings, oral or written, between Company and the Participant regarding the subject matter hereof.

22. Modification and Waiver. This Agreement may not be amended except by a written instrument signed by both Parties which specifically refers to the particular provision or provisions being amended. No provision of this Agreement may be waived except in a written instrument that specifically refers to the particular provision or provisions being waived and is signed by the Party against whom the waiver is being asserted. No waiver by any Party of any right, power or privilege hereunder shall constitute a waiver of any other right, power or privilege hereunder, and no waiver by any party of any breach of a provision hereunder shall constitute a waiver of any other breach of that or any other provision of this Agreement.

23. Severability. If any one or more of the provisions of this Agreement are determined to be unenforceable, in whole or in part, for any reason, shall be unaffected and shall be enforceable as if the void, invalid or unenforceable part was not a provision of the Agreement.

24. Headings. The captions and headings of this Agreement are for convenience of reference only and shall not affect the interpretation of this Agreement.

25. Counterparts. This Agreement may be executed in counterparts, including by transmission of facsimile or PDF copies of signature pages, each of which shall for all purposes are deemed to be an original and all of which shall constitute on instrument. All signatures of the parties transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

[*SIGNATURE PAGE FOLLOWS*]

SIGNATURE PAGE TO
KEMPHARM, INC. INCENTIVE STOCK OPTION AGREEMENT

IN WITNESS WHEREOF, the parties have executed this Agreement as of , 20

KEMPHARM, INC. ("COMPANY")

By: Travis Mickle, President

_____ ("PARTICIPANT"):

Address: _____

_____

Email: _____

OPTION EXERCISE RECORD

Date of Exercise	Number of Options Exercised	Options Remaining Unexercised	Entry Made By

THE STOCK OPTION EVIDENCED BY THIS AGREEMENT HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS AND MAY NOT BE SOLD OR OTHERWISE TRANSFERRED EXCEPT AS PERMITTED UNDER SECTION 10 OF THIS AGREEMENT

KEMPHARM, INC.
NON-QUALIFIED STOCK OPTION AGREEMENT

THIS KEMPHARM, INC. NON-QUALIFIED STOCK OPTION AGREEMENT is entered into by and between **KEMPHARM, INC.,** an Iowa corporation with its principal office at 2656 Crosspark Road, Suite 100, Coralville, IA 52241, and , whose address is set forth beneath the Participant's signature page hereto.

Grant Date:

_____

Exercise Price per Share:

_____

Number of Option Shares:

_____

Expiration Date:

_____

1. DEFINITIONS. As used in this Agreement, the following capitalized terms have shall the following meanings. Capitalized terms used but not defined in this Agreement shall have the meaning ascribed to them in the Plan.

(a) Agreement. "Agreement" means this Non-qualified Stock Option Agreement.

(b) Cause. "Cause" means: (i) acts of willful malfeasance, gross misconduct or neglect with respect to the performance of the Participant's duties and responsibilities as an employee, consultant, officer or director of the Company or its Affiliates, (ii) conduct that results in or is reasonably likely to result in harm to the reputation or business of the Company or any of its affiliates, (iii) the commission of, or plea of guilty or no contest to, a crime constituting a felony, or (vi) the material breach of any contractual obligation to the Company which is not remedied within the time specified under the contract at issue.

(c) Change of Control. "Change of Control" means the occurrence of any of the following:

(1) the acquisition by any person, or group of persons acting in concert (other than the Company or any Affiliate), of beneficial ownership (as determined under Rule 13d-3 of the Exchange Act) of 50.01% or more (on a fully diluted basis) of the then-Outstanding Company Common Stock and/or the then-Outstanding Company Voting Stock (a "Stock Sale"; or

(2) the direct or indirect sale, transfer, license, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of the Company and its subsidiaries, taken as a whole, to any person, or group of persons acting in concert, that is not a subsidiary of the Company (an "Asset Sale"); or

(3) the consummation of a reorganization, merger, consolidation, statutory share exchange or similar form of corporate transaction involving the Company that requires the approval of the Company's shareholders, whether for such transaction or the issuance of securities in the transaction (a "Business Combination");

provided, however, that a Stock Sale, Asset Sale or Business Combination shall not constitute a Change of Control if immediately following such Stock or Asset Sale or Business Combination at least 50.01% of the total voting power eligible to elect at least a majority of the directors of (A) the purchasing entity in such Stock or Asset Sale, or the entity resulting from such Business Combination (in each case the "Surviving Company"), or (B) if applicable, the ultimate parent entity that directly or indirectly has beneficial ownership of sufficient voting securities eligible to elect a majority of the members of the board of directors (or the analogous governing body) of the Surviving Company (the "Parent Company"), is represented by the Outstanding Company Voting Stock that was outstanding immediately prior to such Stock or Asset Sale or Business Combination (or, if applicable, is represented by shares into which the Outstanding Company Voting Stock were converted pursuant to such Stock or Asset Sale or Business Combination), and such voting power among the holders thereof is in substantially the same proportion as the Outstanding Company Voting Securities among the holders thereof immediately prior to the Stock or Asset Sale or Business Combination.

(d) Company. "Company" means KemPharm, Inc.

(e) Continuous Service. "Continuous Service" for the Company means the Participant's performance, without interruption or termination, of ongoing services to the Company or any Affiliate in the capacity of an (i) employee, (ii) officer, (iii) member of the Board, (iv) consultant pursuant to a written consultant or services agreement, or (v) member of an advisory board of the Company.

(f) Exchange Act. The "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(g) Exercise Agreement. "Exercise Agreement" has the meaning ascribed to it in Section 6(a) hereof.

(h) Exercise Price. "Exercise Price" means the price per share at which the Option may be exercised to purchase Option Shares.

(i) Expiration Date. "Expiration Date" means the expiration date set forth above.

(j) Holder. "Holder" means the Participant and the Participant's permitted assigns and successors in interest.

(k) Net Exercise. "Net Exercise" has the meaning ascribed to it in Section 6(c).

(l) Option. "Option" means the option to purchase up to the maximum number of Option Shares granted under this Agreement to the Holder.

(m) Option Shares. "Option Shares" means the shares of Common stock which the Holder may purchase by exercise of the Option (subject to adjustment and substitution pursuant to Section 7).

(n) Outstanding Company Common Stock. "Outstanding Company Common Stock" means, at any given time, the outstanding shares of Common Stock taking into account as outstanding for this purpose such Common Stock issuable upon the exercise of options or warrants, the conversion of convertible stock or debt, and the exercise of any similar right to acquire such Common Stock.

(o) Outstanding Company Voting Stock. "Outstanding Company Voting Stock" means, at any given time, the then-outstanding voting securities of the Company entitled to vote generally in the election of at least a majority of the Company's directors, taking into account as outstanding for this purpose such voting securities as are issuable upon the exercise of options or warrants, the conversion of convertible stock or debt, and the exercise of any similar right to acquire such voting securities.

(p) Participant. "Participant" means the individual named in the first unnumbered paragraph of this Agreement.

(q) Plan. The "Plan" means the Company's Incentive Stock Plan, a copy of which has been made available to the Participant, as may be amended by the Company at any time, in its discretion.

(r) Securities Act. "Securities Act" means the Securities Act of 1933, as amended.

(s) Service Termination Date. "Service Termination Date" means the effective date of the termination of the Participant's Continuous Service.

(t) Stock Certificate. "Stock Certificate" means a certificate issued by the Company representing the ownership of the Option Shares purchased by the exercise of the Option.

2. GRANT OF NON-QUALIFIED STOCK OPTION.

(a) Grant of Option. The Company hereby grants to the Holder the Option to purchase up to the total number of shares set forth above of Common Stock at the Exercise Price. The effective date of the grant of the Option is the date set forth above. The grant of the Option is made pursuant to and subject to the terms and conditions of Plan, which may be amended from time to time, as well as the terms and conditions set forth in this Agreement.

(b) Type of Grant. The Option is intended to be a non-qualified stock option and not an incentive stock option within the meaning of Code Section 422 or any section or sections of future legislation that amend, supplement or supersede that section.

(c) Consideration. The grant of the Option is made in consideration of the Continuous Service to be rendered by the Participant to the Company. The Administrator shall determine, in its sole discretion, whether Continuous Service shall be considered interrupted and the effective date of any termination in the Participant's Continuous Service and the Service Termination Date.

3. EXERCISE PRICE. The Exercise Price at which the Option may be exercised is the exercise price set forth above, which is equal to the fair market value of a share of Common Stock as of the effective date of the grant of the Option. The exercise price established pursuant to the preceding sentence shall be adjusted from time to time pursuant to Sections 7 and 8(b) hereof. For all purposes of this Agreement, the fair market value, at any given time, of a share of Common Stock shall be determined by the Administrator in accordance with the terms and conditions of the Plan.

4. VESTING.

(a) Vesting Schedule. Subject to Section 8(a), the Holder's right to purchase the Option Shares will become vested, such that the Holder shall have the vested right to purchase such Option Shares by exercise of the Option in accordance with the following schedule:

(1) [As determined by the Board of Directors]

(2) [As determinted by the Board of Directors]

(b) Unvested Portion of the Option. At any given time, the Holder may exercise only the vested portion of the Option, and may not exercise the portion of the Option which is unvested. Upon the Participant's Service Termination Date for any reason, the portion of the Option which is not vested as of such date shall be immediately forfeited.

5. EXPIRATION.

(a) Expiration Date. The Option will expire and all rights of the Holder granted hereunder will become null and void at the close of business on the Expiration Date or earlier as provided in this Agreement or the Plan.

(b) Termination of Continuous Service without Cause. If the Participant's Continuous Service terminates for any reason other than death or removal for Cause, then the Holder may exercise the vested portion of the Option (determined as of the Service Termination Date), in whole or in part, but only within such period of time ending on the Expiration Date.

(c) Termination due to Death. If the Participant's Continuous Service terminates as a result of the Participant's death, then the parties identified in this Section 5(c) may exercise the vested portion of the Option (determined as of the Service Termination Date), in whole or in part, but only within such period of time ending on the earlier of (1) the one year anniversary of the Service Termination Date or (2) the Expiration Date. The parties who may exercise the Option pursuant to this Section 5(b) shall be (i) the court-appointed representative of the Participant's estate, (ii) if the Participant's estate is administered with a will, by the persons or persons to whom the Participant's rights in the Option pass under such will, or (iii) if the Participant's estate is administered intestate, by the person or persons to whom the Participant's rights in the Option pass under the applicable intestacy laws. Any person exercising the Option pursuant to this Section 5(c) shall demonstrate to the satisfaction of the Company that he or she has sufficient power and authority under applicable state law to exercise the Option.

(d) Termination for Cause. If the Participant's Continuous Service is terminated by the Company or any Affiliate for Cause, then the Option (whether vested or unvested) shall immediately terminate and cease to be exercisable as of the Service Termination Date. The Administrator, in its absolute discretion, shall determine the effect of all matters and questions relating to whether the Participant was discharged for Cause.

(e) Breach of Contract. Notwithstanding the forgoing, if at any time following the Service Termination Date, the Administrator determines, in its absolute discretion, that the Participant has materially breached any of the Participant's obligations to the Company pursuant any written agreement between the Company and the Participant, then the entire Option shall be forfeited immediately as of the date of such determination by the Administrator, and the Holder may thereafter not exercise any portion of the Option.

6. MANNER OF EXERCISE.

(a) Election to Exercise. To exercise the Option, the Holder must deliver to the Company an executed stock option exercise agreement in such form as is approved by the Administrator from time to time (the "Exercise Agreement"), which shall set forth the Holder's election to exercise the Option, the number of Option Shares being purchased, any restrictions imposed on the Option Shares, and any representations, warranties, and agreements regarding the Holder's investment intent and access to information as may be required by the Company, in its discretion, to comply with applicable securities laws. If someone other than the Participant exercises thee Option, then such person must submit documentation reasonably acceptable to the Company verifying that such person has the legal right to exercise the Option.

(b) Cash Exercise. Unless the Holder elects to exercise the Option on a Net Exercise basis in accordance with Section 5(c) hereof, the Holder must pay in cash or check at the time the Option is exercised an amount equal to the aggregate Exercise Price for the number of Option Shares being purchased.

(c) Net Issue (Cashless Exercise) Election. In lieu of exercising the Option to purchase the Options Shares on a cash basis, the Holder may elect to receive, without the payment by the Holder of any additional consideration, shares of Common Stock equal to the value of the Option Shares or any portion thereof (the "Net Exercise"). Upon exercise of the Option on a Net Exercise basis, the Company will issue to the Holder such number of fully paid and nonassessable shares of Common Stock as is equal to the difference of the total number of Options Shares with respect to which the Net Exercise is made minus a number of shares with an aggregate fair market value equal to the aggregate Exercise Price at the time of exercise. The Board will promptly respond in writing to an inquiry by the Holder as to the fair market value of one share of Common Stock.

(d) No Fractional Shares. No fractional shares of Common Stock may be purchased by exercise of the Option, and when any provision hereof may entitle the Participant to a fractional share, such fraction shall be disregarded.

(e) Partial Exercises. A partial exercise of the Option to purchase less than the entire vested portion of the Option shall not affect the Holder's rights to exercise the Option with respect to the remainder of the vested portion of the Option, subject to the terms and conditions of the Plan and this Agreement.

(f) Effective Date of Issuance. The Option Shares acquired upon exercise of the Option shall be deemed to be issued as of the close of business on the date on which the Company receives from the Holder the duly executed Exercise Agreement and, except in the case of a Net Exercise purchase, payment in cash or by check in the amount equal to the aggregate Exercise Price for the Option Shares being, or such later date as is stated in the Exercise Agreement, which shall in any event be not more than thirty (30) days following the date on which the Exercise Agreement is delivered to the Company; provided that if any law or regulation requires the Company to take any action with respect to the Option Shares to be purchased before the Company's issuance of such shares, then the date of issuance of such Option Shares shall be extended for the period necessary to take such action, and further provided that the Holder has made appropriate arrangements with the Company for any applicable Federal, state and local taxes withholding required by law.

(g) Withholding Taxes. The Company shall not issue any shares of Common Stock being purchased pursuant to the exercise of the Option unless the Company has received payment for all applicable withholding taxes or arrangements satisfactory to the Company for the payment thereof have been made.

7. Adjustments upon Stock Dividends, Etc. In the event of changes in the outstanding Common Stock or in the capital structure of the Company by reason of any stock dividend, stock split, reverse stock split, an extraordinary corporate transaction such as any recapitalization, reorganization, merger, consolidation, combination, exchange, or other relevant change in the Company's capitalization after the effective date of the grant of the Option, the Administrator shall, in its absolute discretion, equitably adjust or substitute the Exercise Price and the maximum number and kind of shares of capital stock for which the Option may be exercised to the extent necessary to preserve the original economic intent of the grant of the Option. In the case of any adjustment pursuant to this Section 7, unless the Administrator specifically determines, in its absolute discretion, that such adjustment is in the best interests of the Company or its Affiliates, the Administrator shall ensure that such adjustment (i) will not constitute a modification of the Option within the meaning of Code Section 409A, and (ii) will be made in a manner which does not adversely affect any applicable exemption provided pursuant to Rule 16b-3 under the Exchange Act. The Company shall give the Holder notice of an adjustment pursuant to this Section 7, and, upon notice, such adjustment shall be conclusive and binding upon the Company and the Holder for all purposes.

8. Effect of Change in Control.

(a) Acceleration of Vesting. If a Change of Control occurs and the Participant's Continuous Service is terminated by the Company (other than for death or Cause) within twenty-four (24) months following the Change of Control, the Holder's right to purchase the Option Shares will become immediately 100% vested and exercisable.

(b) Cash-out. In the event of a Change of Control, the Administrator, in its discretion and upon at least 10 days' advance notice to the Holder, cancel the Option and pay to the Holder the value of the Option (treated as if the Option was 100% vested at such time) based upon the price per share of Common Stock received or to be received by other shareholders of the Company in the event.

(c) Determination. The Administrator, in its absolute discretion, shall determine the effect of all matters and questions relating to whether a Change of Control has occurred.

9. Shareholder Rights upon Exercise.

(a) Delivery of Certificates. As soon as practical after the effective date of issuance of Option Shares purchased by exercise of the Option, in accordance with section 6(f) hereof, the Company will cause to be issued in the name of and delivered to the Holder, or as otherwise directed in the duly executed Exercise Agreement, one or more Stock Certificates representing the purchased Option Shares. The Stock Certificate shall contain such restrictive legends or other conditions and restrictions governing the disposition of the Shares as may be reasonably required by this Agreement, the Company's articles of incorporation and bylaws, applicable securities laws or any other law or regulation. The Company shall have the sole discretion to determine whether a legend, restriction or condition is reasonable in light of the facts and circumstances involved in each situation.

(b) Shareholder Status. The Holder shall have no rights or privileges of a shareholder of the Company with respect to any of the Option Shares issuable on the exercise of this Option unless and until the Company has issued and delivered to the Holder one or more Stock Certificates.

(c) Shareholder Agreements. Immediately upon exercise of the Option, the Participant shall be subject to all the terms and conditions of any shareholders' agreement (or similar agreement) entered into by the Company's shareholders and in effect at that time. The Company may refuse to issue a Stock Certificate pursuant to this Agreement until the Holder signs and agrees to be bound by any such agreement.

10. Lock Up Agreement. The Holder agrees that, if so requested by the Company and an underwriter of securities of the Company pursuant to the registration of such securities under the Securities Act, the Holder shall not sell or otherwise transfer or dispose of any Option Shares purchased by exercise of the Option (other than those included in the registration) for a period specified by the underwriter not to exceed 180 days following the effective date of a registration statement of the Company filed under said Act, provided that: (a) such agreement shall apply to the Company's initial public offering only; and (b) all officers and directors of the Company enter into similar agreements. The obligations described in this Section 9 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Securities and Exchange Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the Shares (or other securities) subject to the foregoing restriction until the end of said 180 day period.

11. Nontransferability of Option. The Option has not been registered under the Securities Act. Neither this Option nor the rights and privileges conferred by this Agreement may be transferred, assigned, pledged or hypothecated in any manner (whether by operation of law or otherwise) other than by will or by the applicable laws of descent and distribution.

12. Transfer Restrictions on Stock Imposed by the Securities Act.

(a) Restriction on Transfer. Notwithstanding any other provision of this Agreement, no transfer for value of any shares of stock acquired upon exercise of the Option shall be valid unless (i) there is an effective registration statement under the Securities Act covering the stock issuable by exercise the Option; or (ii) the Holder has furnished the Company with an opinion of counsel satisfactory to the Company that such transfer will not violate the registration requirements of the Securities Act or any applicable state law regulating the sale of securities.

(b) Legend. The face of each certificate representing shares of stock issued upon the exercise of the Option shall bear a legend substantially similar to the following:

THE SHARES OF STOCK REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR THE SECURITIES LAWS OF ANY STATE AND MAY NOT BE SOLD, TRANSFERRED OR PLEDGED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT UNDER SUCH ACT AND STATUTES UNLESS PRIOR TO ANY SALE, TRANSFER OR PLEDGE, THE ISSUER RECEIVES AN OPINION OF COUNSEL, IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, THAT THE REGISTRATION IS NOT REQUIRED UNDER SUCH ACT AND STATUTES AND THE RULES PROMULGATED THEREUNDER.

(c) Investment Intent. If there is not an effective registration statement under the Securities Act covering the shares of the stock to be issued by exercise of the Option, the Holder may acquire such shares upon exercise of the Option only for the Holder's own account and not with a view to, or for resale in connection with, any distribution thereof within the meaning of the Securities Act.

13. Continuation of Service. Nothing contained in this Agreement shall confer upon the Participant the right to be retained by the Company or its Affiliates, or upon the Company and its Affiliates the obligation to retain the Participant, in any position as an employee, consultant, officer or director of the Company. Further, noting in the Plan or this Agreement shall be construed to limit or interfere in any way with the right of the Company or any of its Affiliates to reduce the Participant's compensation or to terminate Participant's Continuous Service at any time, with or without Cause.

14. Administration; the Plan. The Company shall have the authority to construe the terms of this Agreement and to prescribe rules and regulations relating to the administration of this Option. The terms and provisions of the Plan are incorporated herein by reference. To the extent any provision of this Agreement is inconsistent or in conflict with any term or provision of the Plan, the Plan shall govern.

15. Notice. All notices, demands and other communications shall be in writing and given via personal delivery, overnight, next-day or second-day delivery by a national delivery service, confirmed email, confirmed facsimile, or mailed through the U.S. postal service, proper postage prepaid to, in the case of the Company, addressed to the Company's principal office marked attention to the Company's president, or to the president's primary Company email address, and in the case of the Holder, addressed to the postal address or email address set forth beneath the Participant's signature hereto, and in each case to such other mail address, email address or facsimile number as may hereafter be furnished in writing by either party to the other party. Any such notice, demand or communication shall be deemed received by the addressee (i) upon actual receipt in the case of personal delivery or overnight, next-day or second-day delivery by a national delivery service, (ii) the next business day immediately following the date on which notice is transmitted, in the case of notice by confirmed email or facsimile, or (iii) in the case of notice mailed through the U.S. postal service, on the third business day following the deposit of such notice in the mail.

16. Governing Law; Jurisdiction. **This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Iowa. The litigation of any disputes arising out of this Agreement shall take place in the appropriate federal or state court located in Johnson County, Iowa. The parties, to the extent they can legally do so, hereby consent to service of process, and to be sued in the State of Iowa and consent to the exclusive jurisdiction of the courts of the State of Iowa and the United States District Court for the Southern District of Iowa, as well as to the jurisdiction of all courts to which an appeal may be taken from such courts, for the purpose of any suit, action or other proceeding arising out of any of their obligations hereunder or with respect to the transactions contemplated hereby, and expressly waive any and all objections they may have to venue in such courts.**

17. Successors. The provisions of this Agreement shall be binding upon and inure to the benefit of (a) each Holder hereunder, the Participant's heirs, personal representatives, executors, estate administrators, successors and permitted assigns, and any receiver, trustee in bankruptcy or representative of creditors of

a Holder, and (b) any successor corporation of the Company, or upon any successor corporation or organization succeeding to all or substantially all of the assets and business of the Company and its Affiliates, taken as a whole.

18. Entire Agreement. This Agreement, subject to the terms and conditions of the Plan, contain the entire understanding of the parties to this Agreement with respect to the grant of the Option hereunder, and supersedes and replaces all former agreements or understandings, oral or written, between Company and the Participant regarding the subject matter hereof.

19. Modification and Waiver. This Agreement may not be amended except by a written instrument signed by both Parties which specifically refers to the particular provision or provisions being amended. No provision of this Agreement may be waived except in a written instrument that specifically refers to the particular provision or provisions being waived and is signed by the Party against whom the waiver is being asserted. No waiver by any Party of any right, power or privilege hereunder shall constitute a waiver of any other right, power or privilege hereunder, and no waiver by any party of any breach of a provision hereunder shall constitute a waiver of any other breach of that or any other provision of this Agreement.

20. Severability. If any one or more of the provisions of this Agreement are determined to be unenforceable, in whole or in part, for any reason, shall be unaffected and shall be enforceable as if the void, invalid or unenforceable part was not a provision of the Agreement.

21. Headings. The captions and headings of this Agreement are for convenience of reference only and shall not affect the interpretation of this Agreement.

22. Counterparts. This Agreement may be executed in counterparts, including by transmission of facsimile or PDF copies of signature pages, each of which shall for all purposes are deemed to be an original and all of which shall constitute on instrument. All signatures of the parties transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

[*SIGNATURE PAGE FOLLOWS*]

SIGNATURE PAGE TO
KEMPHARM, INC. NON-QUALIFIED STOCK OPTION AGREEMENT

IN WITNESS WHEREOF, the parties have executed this Agreement as of , 20

KEMPHARM, INC. ("COMPANY")

By: Travis Mickle, President

_____ ("PARTICIPANT"):

Address: _____

_____

Email: _____

OPTION EXERCISE RECORD

Date of Exercise	Number of Options Exercised	Options Remaining Unexercised	Entry Made By

KEMPHARM, INC.

2014 EQUITY INCENTIVE PLAN

ADOPTED BY THE BOARD OF DIRECTORS: NOVEMBER 7, 2014
APPROVED BY THE STOCKHOLDERS: _____, 2014
IPO DATE/EFFECTIVE DATE: _____, 2015

1. GENERAL.

(a) Eligible Award Recipients. Employees, Directors and Consultants are eligible to receive Awards.

(b) Available Awards. The Plan provides for the grant of the following Awards: (i) Incentive Stock Options, (ii) Nonstatutory Stock Options, (iii) Stock Appreciation Rights (iv) Restricted Stock Awards, (v) Restricted Stock Unit Awards, (vi) Performance Stock Awards, (vii) Performance Cash Awards, and (viii) Other Stock Awards.

(c) Purpose. This Plan, through the granting of Awards, is intended to help the Company secure and retain the services of eligible award recipients, provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate, and provide a means by which the eligible recipients may benefit from increases in value of the Common Stock.

2. ADMINISTRATION.

(a) Administration by Board. The Board will administer the Plan. The Board may delegate administration of the Plan to a Committee or Committees, as provided in Section 2(c).

(b) Powers of Board. The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine: (A) who will be granted Awards; (B) when and how each Award will be granted; (C) what type of Award will be granted; (D) the provisions of each Award (which need not be identical), including when a person will be permitted to exercise or otherwise receive cash or Common Stock under the Award; (E) the number of shares of Common Stock subject to, or the cash value of, an Award; and (F) the Fair Market Value applicable to a Stock Award.

(ii) To construe and interpret the Plan and Awards granted under it, and to establish, amend and revoke rules and regulations for administration of the Plan and Awards. The Board, in the exercise of these powers, may correct any defect, omission or inconsistency in the Plan or in any Award Agreement or in the written terms of a Performance Cash Award, in a manner and to the extent it will deem necessary or expedient to make the Plan or Award fully effective.

(iii) To settle all controversies regarding the Plan and Awards granted under it.

(iv) To accelerate, in whole or in part, the time at which an Award may be exercised or vest (or at which cash or shares of Common Stock may be issued).

(v) To suspend or terminate the Plan at any time. Except as otherwise provided in the Plan or an Award Agreement, suspension or termination of the Plan will not materially impair a Participant's rights under his or her then-outstanding Award without his or her written consent except as provided in subsection (viii) below.

(vi) To amend the Plan in any respect the Board deems necessary or advisable, including, without limitation, by adopting amendments relating to Incentive Stock Options and certain nonqualified deferred compensation under Section 409A of the Code and/or to bring the Plan or Awards granted under the Plan compliant with the requirements for Incentive Stock Options or exempt from or compliant with the requirements for nonqualified deferred compensation under Section 409A of the Code, subject to the limitations, if any, of applicable law. If required by applicable law or listing requirements, and except as provided in Section 9(a) relating to Capitalization Adjustments, the Company will seek stockholder approval of any amendment of the Plan that (A) materially increases the number of shares of Common Stock available for issuance under the Plan, (B) materially expands the class of individuals eligible to receive Awards under the Plan, (C) materially increases the benefits accruing to Participants under the Plan, (D) materially reduces the price at which shares of Common Stock may be issued or purchased under the Plan, (E) materially extends the term of the Plan, or (F) materially expands the types of Awards available for issuance under the Plan. Except as otherwise provided in the Plan or an Award Agreement, no amendment of the Plan will materially impair a Participant's rights under an outstanding Award without the Participant's written consent.

(vii) To submit any amendment to the Plan for stockholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of (A) Section 162(m) of the Code regarding the exclusion of performance-based compensation from the limit on corporate deductibility of compensation paid to Covered Employees, (B) Section 422 of the Code regarding "incentive stock options" or (C) Rule 16b-3.

(viii) To approve forms of Award Agreements for use under the Plan and to amend the terms of any one or more Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion; *provided however,* that a Participant's rights under any Award will not be impaired by any such amendment unless (A) the Company requests the consent of the affected Participant, and (B) such Participant consents in writing. Notwithstanding the foregoing, (1) a Participant's rights will not be deemed to have been impaired by any such amendment if the Board, in its sole discretion, determines that the amendment, taken as a whole, does not materially impair the Participant's rights, and (2) subject to the limitations of applicable law, if any, the Board may amend the terms of any one or more Awards without the affected Participant's consent (A) to maintain the qualified status of the Award as an Incentive Stock Option under Section 422 of the Code; (B) to change the terms of an Incentive Stock Option, if such change results in impairment of the Award solely because it impairs the qualified status of the Award as an Incentive Stock

Option under Section 422 of the Code; (C) to clarify the manner of exemption from, or to bring the Award into compliance with, Section 409A of the Code; or (D) to comply with other applicable laws or listing requirements.

(ix) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or Awards.

(x) To adopt such procedures and sub-plans as are necessary or appropriate to permit participation in the Plan by Employees, Directors or Consultants who are foreign nationals or employed outside the United States (provided that Board approval will not be necessary for immaterial modifications to the Plan or any Award Agreement that are required for compliance with the laws of the relevant foreign jurisdiction).

(xi) To effect, with the consent of any adversely affected Participant, (A) the reduction of the exercise, purchase or strike price of any outstanding Stock Award; (B) the cancellation of any outstanding Stock Award and the grant in substitution therefor of a new (1) Option or SAR, (2) Restricted Stock Award, (3) Restricted Stock Unit Award, (4) Other Stock Award, (5) cash award and/or (6) award of other valuable consideration determined by the Board, in its sole discretion, with any such substituted award (x) covering the same or a different number of shares of Common Stock as the cancelled Stock Award and (y) granted under the Plan or another equity or compensatory plan of the Company; or (C) any other action that is treated as a repricing under generally accepted accounting principles.

(c) Delegation to Committee.

(i) General. The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee will have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board will thereafter be to the Committee or subcommittee, as applicable). Any delegation of administrative powers will be reflected in resolutions, not inconsistent with the provisions of the Plan, adopted from time to time by the Board or Committee (as applicable). The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revest in the Board some or all of the powers previously delegated.

(ii) Section 162(m) and Rule 16b-3 Compliance. The Committee may consist solely of two or more Outside Directors, in accordance with Section 162(m) of the Code, or solely of two or more Non-Employee Directors, in accordance with Rule 16b-3.

(d) Delegation to an Officer. The Board may delegate to one (1) or more Officers the authority to do one or both of the following (i) designate Employees who are not Officers to be recipients of Options and SARs (and, to the extent permitted by applicable law, other Stock Awards) and, to the extent permitted by applicable law, the terms of such Awards, and (ii) determine the number of shares of Common Stock to be subject to such Stock Awards granted to

such Employees; *provided, however,* that the Board resolutions regarding such delegation will specify the total number of shares of Common Stock that may be subject to the Stock Awards granted by such Officer and that such Officer may not grant a Stock Award to himself or herself. Any such Stock Awards will be granted on the form of Stock Award Agreement most recently approved for use by the Committee or the Board, unless otherwise provided in the resolutions approving the delegation authority. The Board may not delegate authority to an Officer who is acting solely in the capacity of an Officer (and not also as a Director) to determine the Fair Market Value pursuant to Section 13(x)(iii) below.

(e) Effect of Board's Decision. All determinations, interpretations and constructions made by the Board in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

3. SHARES SUBJECT TO THE PLAN.

(a) Share Reserve. Subject to Section 9(a) relating to Capitalization Adjustments, and the following sentence regarding the annual increase, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards will not exceed 17,000,000 (the ***"Share Reserve"***). In addition, the Share Reserve will automatically increase on January 1st of each year, for a period of not more than ten years, commencing on January 1st of the year following the year in which the IPO Date occurs and ending on (and including) January 1, 2024, in an amount equal to 4.0% of the total number of shares of Capital Stock outstanding on December 31st of the preceding calendar year. Notwithstanding the foregoing, the Board may act prior to January 1st of a given year to provide that there will be no January 1st increase in the Share Reserve for such year or that the increase in the Share Reserve for such year will be a lesser number of shares of Common Stock than would otherwise occur pursuant to the preceding sentence. For clarity, the Share Reserve is a limitation on the number of shares of Common Stock that may be issued under the Plan. Accordingly, this Section 3(a) does not limit the granting of Stock Awards except as provided in Section 7(a). Shares may be issued in connection with a merger or acquisition as permitted by NASDAQ Listing Rule 5635(c) or other applicable rule, and such issuance will not reduce the number of shares available for issuance under the Plan.

(b) Reversion of Shares to the Share Reserve. If a Stock Award or any portion thereof (i) expires or otherwise terminates without all of the shares covered by such Stock Award having been issued or (ii) is settled in cash (*i.e.*, the Participant receives cash rather than stock), such expiration, termination or settlement will not reduce (or otherwise offset) the number of shares of Common Stock that may be available for issuance under the Plan. If any shares of Common Stock issued pursuant to a Stock Award are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required to vest such shares in the Participant, then the shares that are forfeited or repurchased will revert to and again become available for issuance under the Plan. Any shares reacquired by the Company in satisfaction of tax withholding obligations on a Stock Award or as consideration for the exercise or purchase price of a Stock Award will again become available for issuance under the Plan.

(c) Incentive Stock Option Limit. Subject to the provisions of Section 9(a) relating to Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options will be 102,000,000 shares of Common Stock.

(d) Section 162(m) Limitations. Subject to the provisions of Section 9(a) relating to Capitalization Adjustments, at such time as the Company may be subject to the applicable provisions of Section 162(m) of the Code, the following limitations shall apply.

(i) A maximum of 25,500,000 shares of Common Stock subject to Options, SARs and Other Stock Awards whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the Fair Market Value on the date the Stock Award is granted may be granted to any one Participant during any one calendar year. Notwithstanding the foregoing, if any additional Options, SARs or Other Stock Awards whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the Fair Market Value on the date the Stock Award are granted to any Participant during any calendar year, compensation attributable to the exercise of such additional Stock Awards will not satisfy the requirements to be considered "qualified performance-based compensation" under Section 162(m) of the Code unless such additional Stock Award is approved by the Company's stockholders.

(ii) A maximum of 25,500,000 shares of Common Stock subject to Performance Stock Awards may be granted to any one Participant during any one calendar year (whether the grant, vesting or exercise is contingent upon the attainment during the Performance Period of the Performance Goals).

(iii) A maximum of $5,000,000 may be granted as a Performance Cash Award to any one Participant during any one calendar year.

(e) Non-Employee Director Compensation Limitation. In addition, the maximum number of shares subject to awards granted during a single fiscal year to any non-employee director, taken together with any cash fees paid to such non-employee director during the fiscal year, shall not exceed $500,000 in total value (calculating the value of any such awards based on the grant date fair value of such awards for financial reporting purposes and excluding, for this purpose, the value of any dividend equivalent payments paid pursuant to any award granted in a previous fiscal year).

(f) Source of Shares. The stock issuable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

4. ELIGIBILITY.

(a) Eligibility for Specific Stock Awards. Incentive Stock Options may be granted only to employees of the Company or a "parent corporation" or "subsidiary corporation" thereof (as such terms are defined in Sections 424(e) and 424(f) of the Code). Stock Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants; *provided*, *however,* that Stock Awards may not be granted to Employees, Directors and Consultants who are providing Continuous Service only to any "parent" of the Company, as such term is defined in Rule 405 of the Securities Act, unless (i) the stock underlying such Stock Awards is treated as

"service recipient stock" under Section 409A of the Code (for example, because the Stock Awards are granted pursuant to a corporate transaction such as a spin off transaction), (ii) the Company, in consultation with its legal counsel, has determined that such Stock Awards are otherwise exempt from Section 409A of the Code, or (iii) the Company, in consultation with its legal counsel, has determined that such Stock Awards comply with the distribution requirements of Section 409A of the Code.

(**b) Ten Percent Stockholders.** A Ten Percent Stockholder will not be granted an Incentive Stock Option unless the exercise price of such Option is at least 110% of the Fair Market Value on the date of grant and the Option is not exercisable after the expiration of five years from the date of grant.

5. PROVISIONS RELATING TO OPTIONS AND STOCK APPRECIATION RIGHTS.

Each Option or SAR will be in such form and will contain such terms and conditions as the Board deems appropriate. All Options will be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates will be issued for shares of Common Stock purchased on exercise of each type of Option. If an Option is not specifically designated as an Incentive Stock Option, or if an Option is designated as an Incentive Stock Option but some portion or all of the Option fails to qualify as an Incentive Stock Option under the applicable rules, then the Option (or portion thereof) will be a Nonstatutory Stock Option. The provisions of separate Options or SARs need not be identical; *provided*, *however,* that each Award Agreement will conform to (through incorporation of provisions hereof by reference in the applicable Award Agreement or otherwise) the substance of each of the following provisions:

(a) Term. Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, no Option or SAR will be exercisable after the expiration of ten years from the date of its grant or such shorter period specified in the Award Agreement.

(b) Exercise Price. Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, the exercise or strike price of each Option or SAR will be not less than 100% of the Fair Market Value of the Common Stock subject to the Option or SAR on the date the Award is granted. Notwithstanding the foregoing, an Option or SAR may be granted with an exercise or strike price lower than 100% of the Fair Market Value of the Common Stock subject to the Award if such Award is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Corporate Transaction and in a manner consistent with the provisions of Section 409A and, if applicable, Section 424(a) of the Code. Each SAR will be denominated in shares of Common Stock equivalents.

(c) Purchase Price for Options. The purchase price of Common Stock acquired pursuant to the exercise of an Option may be paid, to the extent permitted by applicable law and as determined by the Board in its sole discretion, by any combination of the methods of payment set forth below. The Board will have the authority to grant Options that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to use a particular method of payment. The permitted methods of payment are as follows:

(i) by cash, check, bank draft or money order payable to the Company;

(ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock;

(iv) if an Option is a Nonstatutory Stock Option, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; *provided*, *however*, that the Company will accept a cash or other payment from the Participant to the extent of any remaining balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued. Shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are reduced to pay the exercise price pursuant to the "net exercise," (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations; or

(v) in any other form of legal consideration that may be acceptable to the Board and specified in the applicable Award Agreement.

(d) Exercise and Payment of a SAR. To exercise any outstanding SAR, the Participant must provide written notice of exercise to the Company in compliance with the provisions of the Stock Appreciation Right Agreement evidencing such SAR. The appreciation distribution payable on the exercise of a SAR will be not greater than an amount equal to the excess of (A) the aggregate Fair Market Value (on the date of the exercise of the SAR) of a number of shares of Common Stock equal to the number of Common Stock equivalents in which the Participant is vested under such SAR, and with respect to which the Participant is exercising the SAR on such date, over (B) the aggregate strike price of the number of Common Stock equivalents with respect to which the Participant is exercising the SAR on such date. The appreciation distribution may be paid in Common Stock, in cash, in any combination of the two or in any other form of consideration, as determined by the Board and contained in the Award Agreement evidencing such SAR.

(e) Transferability of Options and SARs. The Board may, in its sole discretion, impose such limitations on the transferability of Options and SARs as the Board will determine. In the absence of such a determination by the Board to the contrary, the following restrictions on the transferability of Options and SARs will apply:

(i) Restrictions on Transfer. An Option or SAR will not be transferable except by will or by the laws of descent and distribution (or pursuant to subsections (ii) and (iii) below), and will be exercisable during the lifetime of the Participant only by the Participant. The Board may permit transfer of the Option or SAR in a manner that is not prohibited by applicable tax and securities laws. Except as explicitly provided herein, neither an Option nor a SAR may be transferred for consideration.

(ii) Domestic Relations Orders. Subject to the approval of the Board or a duly authorized Officer, an Option or SAR may be transferred pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument as permitted by Treasury Regulations Section 1.421-1(b)(2). If an Option is an Incentive Stock Option, such Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(iii) Beneficiary Designation. Subject to the approval of the Board or a duly authorized Officer, a Participant may, by delivering written notice to the Company, in a form approved by the Company (or the designated broker), designate a third party who, on the death of the Participant, will thereafter be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, the executor or administrator of the Participant's estate will be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. However, the Company may prohibit designation of a beneficiary at any time, including due to any conclusion by the Company that such designation would be inconsistent with the provisions of applicable laws.

(f) Vesting Generally. The total number of shares of Common Stock subject to an Option or SAR may vest and become exercisable in periodic installments that may or may not be equal. The Option or SAR may be subject to such other terms and conditions on the time or times when it may or may not be exercised (which may be based on the satisfaction of Performance Goals or other criteria) as the Board may deem appropriate. The vesting provisions of individual Options or SARs may vary. The provisions of this Section 5(f) are subject to any Option or SAR provisions governing the minimum number of shares of Common Stock as to which an Option or SAR may be exercised.

(g) Termination of Continuous Service. Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates (other than for Cause and other than upon the Participant's death or Disability), the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Award as of the date of termination of Continuous Service) within the period of time ending on the earlier of (i) the date three months following the termination of the Participant's Continuous Service (or such longer or shorter period specified in the applicable Award Agreement), and (ii) the expiration of the term of the Option or SAR as set forth in the Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR (as applicable) within the applicable time frame, the Option or SAR will terminate.

(h) Extension of Termination Date. If the exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause and other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option or SAR will terminate on the earlier of (i) the expiration of a total period of time

(that need not be consecutive) equal to the applicable post termination exercise period after the termination of the Participant's Continuous Service during which the exercise of the Option or SAR would not be in violation of such registration requirements, and (ii) the expiration of the term of the Option or SAR as set forth in the applicable Award Agreement. In addition, unless otherwise provided in a Participant's Award Agreement, if the sale of any Common Stock received on exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause) would violate the Company's insider trading policy, then the Option or SAR will terminate on the earlier of (i) the expiration of a period of months (that need not be consecutive) equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the sale of the Common Stock received upon exercise of the Option or SAR would not be in violation of the Company's insider trading policy, or (ii) the expiration of the term of the Option or SAR as set forth in the applicable Award Agreement.

(i) Disability of Participant. Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates as a result of the Participant's Disability, the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date 12 months following such termination of Continuous Service (or such longer or shorter period specified in the Award Agreement), and (ii) the expiration of the term of the Option or SAR as set forth in the Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the applicable time frame, the Option or SAR (as applicable) will terminate.

(j) Death of Participant. Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if (i) a Participant's Continuous Service terminates as a result of the Participant's death, or (ii) the Participant dies within the period (if any) specified in the Award Agreement for exercisability after the termination of the Participant's Continuous Service for a reason other than death, then the Option or SAR may be exercised (to the extent the Participant was entitled to exercise such Option or SAR as of the date of death) by the Participant's estate, by a person who acquired the right to exercise the Option or SAR by bequest or inheritance or by a person designated to exercise the Option or SAR upon the Participant's death, but only within the period ending on the earlier of (i) the date 18 months following the date of death (or such longer or shorter period specified in the Award Agreement), and (ii) the expiration of the term of such Option or SAR as set forth in the Award Agreement. If, after the Participant's death, the Option or SAR is not exercised within the applicable time frame, the Option or SAR (as applicable) will terminate.

(k) Termination for Cause. Except as explicitly provided otherwise in a Participant's Award Agreement or other individual written agreement between the Company or any Affiliate and the Participant, if a Participant's Continuous Service is terminated for Cause, the Option or SAR will terminate immediately upon such Participant's termination of Continuous Service, and the Participant will be prohibited from exercising his or her Option or SAR from and after the date of such termination of Continuous Service.

(l) Non-Exempt Employees. If an Option or SAR is granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, the Option or SAR will not be first exercisable for any shares of Common Stock until at least six months following the date of grant of the Option or SAR (although the Award may vest prior to such date). Consistent with the provisions of the Worker Economic Opportunity Act, (i) if such non-exempt Employee dies or suffers a Disability, (ii) upon a Corporate Transaction in which such Option or SAR is not assumed, continued, or substituted, (iii) upon a Change in Control, or (iv) upon the Participant's retirement (as such term may be defined in the Participant's Award Agreement in another agreement between the Participant and the Company, or, if no such definition, in accordance with the Company's then current employment policies and guidelines), the vested portion of any Options and SARs may be exercised earlier than six months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option or SAR will be exempt from his or her regular rate of pay. To the extent permitted and/or required for compliance with the Worker Economic Opportunity Act to ensure that any income derived by a non-exempt employee in connection with the exercise, vesting or issuance of any shares under any other Stock Award will be exempt from the employee's regular rate of pay, the provisions of this Section 5(l) will apply to all Stock Awards and are hereby incorporated by reference into such Stock Award Agreements.

6. PROVISIONS OF STOCK AWARDS OTHER THAN OPTIONS AND SARS.

(a) Restricted Stock Awards. Each Restricted Stock Award Agreement will be in such form and will contain such terms and conditions as the Board will deem appropriate. To the extent consistent with the Company's bylaws, at the Board's election, shares of Common Stock may be (x) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock Award lapse; or (y) evidenced by a certificate, which certificate will be held in such form and manner as determined by the Board. The terms and conditions of Restricted Stock Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Award Agreements need not be identical. Each Restricted Stock Award Agreement will conform to (through incorporation of the provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. A Restricted Stock Award may be awarded in consideration for (A) cash, check, bank draft or money order payable to the Company, (B) past services to the Company or an Affiliate, or (C) any other form of legal consideration (including future services) that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Vesting. Shares of Common Stock awarded under the Restricted Stock Award Agreement may be subject to forfeiture to the Company in accordance with a vesting schedule to be determined by the Board.

(iii) Termination of Participant's Continuous Service. If a Participant's Continuous Service terminates, the Company may receive through a forfeiture condition or a repurchase right any or all of the shares of Common Stock held by the Participant as of the date of termination of Continuous Service under the terms of the Restricted Stock Award Agreement.

(iv) Transferability. Rights to acquire shares of Common Stock under the Restricted Stock Award Agreement will be transferable by the Participant only upon such terms and conditions as are set forth in the Restricted Stock Award Agreement, as the Board will determine in its sole discretion, so long as Common Stock awarded under the Restricted Stock Award Agreement remains subject to the terms of the Restricted Stock Award Agreement.

(v) Dividends. A Restricted Stock Award Agreement may provide that any dividends paid on Restricted Stock will be subject to the same vesting and forfeiture restrictions as apply to the shares subject to the Restricted Stock Award to which they relate.

(b) Restricted Stock Unit Awards. Each Restricted Stock Unit Award Agreement will be in such form and will contain such terms and conditions as the Board will deem appropriate. The terms and conditions of Restricted Stock Unit Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Unit Award Agreements need not be identical. Each Restricted Stock Unit Award Agreement will conform to (through incorporation of the provisions hereof by reference in the Agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Vesting. At the time of the grant of a Restricted Stock Unit Award, the Board may impose such restrictions on or conditions to the vesting of the Restricted Stock Unit Award as it, in its sole discretion, deems appropriate.

(iii) Payment. A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Restricted Stock Unit Award Agreement.

(iv) Additional Restrictions. At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award.

(v) Dividend Equivalents. Dividend equivalents may be credited in respect of shares of Common Stock covered by a Restricted Stock Unit Award, as determined by the Board and contained in the Restricted Stock Unit Award Agreement. At the sole discretion of the Board, such dividend equivalents may be converted into additional shares of Common Stock covered by the Restricted Stock Unit Award in such manner as determined by the Board. Any additional shares covered by the Restricted Stock Unit Award credited by reason of such dividend equivalents will be subject to all of the same terms and conditions of the underlying Restricted Stock Unit Award Agreement to which they relate.

(vi) Termination of Participant's Continuous Service. Except as otherwise provided in the applicable Restricted Stock Unit Award Agreement, such portion of the Restricted Stock Unit Award that has not vested will be forfeited upon the Participant's termination of Continuous Service.

(c) Performance Awards.

(i) Performance Stock Awards. A Performance Stock Award is a Stock Award (covering a number of shares not in excess of that set forth in Section 3(d) above) that is payable (including that may be granted, may vest or may be exercised) contingent upon the attainment during a Performance Period of certain Performance Goals. A Performance Stock Award may, but need not, require the Participant's completion of a specified period of Continuous Service. The length of any Performance Period, the Performance Goals to be achieved during the Performance Period, and the measure of whether and to what degree such Performance Goals have been attained will be conclusively determined by the Committee (or, if not required for compliance with Section 162(m) of the Code, the Board), in its sole discretion. In addition, to the extent permitted by applicable law and the applicable Award Agreement, the Board may determine that cash may be used in payment of Performance Stock Awards.

(ii) Performance Cash Awards. A Performance Cash Award is a cash award (for a dollar value not in excess of that set forth in Section 3(d) above) that is payable contingent upon the attainment during a Performance Period of certain Performance Goals. A Performance Cash Award may also require the completion of a specified period of Continuous Service. At the time of grant of a Performance Cash Award, the length of any Performance Period, the Performance Goals to be achieved during the Performance Period, and the measure of whether and to what degree such Performance Goals have been attained will be conclusively determined by the Committee (or, if not required for compliance with Section 162(m) of the Code, the Board), in its sole discretion. The Board may specify the form of payment of Performance Cash Awards, which may be cash or other property, or may provide for a Participant to have the option for his or her Performance Cash Award, or such portion thereof as the Board may specify, to be paid in whole or in part in cash or other property.

(iii) Board Discretion. The Board retains the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for a Performance Period.

(iv) Section 162(m) Compliance. Unless otherwise permitted in compliance with the requirements of Section 162(m) of the Code with respect to an Award intended to qualify as "performance-based compensation" thereunder, the Committee will establish the Performance Goals applicable to, and the formula for calculating the amount payable under, the Award no later than the earlier of (a) the date 90 days after the commencement of the applicable Performance Period, and (b) the date on which 25% of the Performance Period has elapsed, and in any event at a time when the achievement of the applicable Performance Goals remains substantially uncertain. Prior to the payment of any compensation under an Award intended to qualify as "performance-based compensation" under Section 162(m) of the Code, the Committee will certify the extent to which any Performance Goals and any other material terms under such Award have been satisfied (other than in cases where such Performance Goals relate solely to the

increase in the value of the Common Stock). Notwithstanding satisfaction of, or completion of any Performance Goals, the number of shares of Common Stock, Options, cash or other benefits granted, issued, retainable and/or vested under an Award on account of satisfaction of such Performance Goals may be reduced by the Committee on the basis of such further considerations as the Committee, in its sole discretion, will determine.

(d) Other Stock Awards. Other forms of Stock Awards valued in whole or in part by reference to, or otherwise based on, Common Stock, including the appreciation in value thereof (e.g., options or stock rights with an exercise price or strike price less than 100% of the Fair Market Value of the Common Stock at the time of grant) may be granted either alone or in addition to Stock Awards provided for under Section 5 and the preceding provisions of this Section 6. Subject to the provisions of the Plan, the Board will have sole and complete authority to determine the persons to whom and the time or times at which such Other Stock Awards will be granted, the number of shares of Common Stock (or the cash equivalent thereof) to be granted pursuant to such Other Stock Awards and all other terms and conditions of such Other Stock Awards.

7. COVENANTS OF THE COMPANY.

(a) Availability of Shares. The Company will keep available at all times the number of shares of Common Stock reasonably required to satisfy then-outstanding Awards.

(b) Securities Law Compliance. The Company will seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of the Stock Awards; *provided*, *however*, that this undertaking will not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts and at a reasonable cost, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company will be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained. A Participant will not be eligible for the grant of an Award or the subsequent issuance of cash or Common Stock pursuant to the Award if such grant or issuance would be in violation of any applicable securities law.

(c) No Obligation to Notify or Minimize Taxes. The Company will have no duty or obligation to any Participant to advise such holder as to the time or manner of exercising such Stock Award. Furthermore, the Company will have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of an Award or a possible period in which the Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of an Award to the holder of such Award.

8. MISCELLANEOUS.

(a) Use of Proceeds from Sales of Common Stock. Proceeds from the sale of shares of Common Stock pursuant to Awards will constitute general funds of the Company.

(b) Corporate Action Constituting Grant of Awards. Corporate action constituting a grant by the Company of an Award to any Participant will be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Award is communicated to, or actually received or accepted by, the Participant. In the event that the corporate records (e.g., Board consents, resolutions or minutes) documenting the corporate action constituting the grant contain terms (e.g., exercise price, vesting schedule or number of shares) that are inconsistent with those in the Award Agreement or related grant documents as a result of a clerical error in the papering of the Award Agreement or related grant documents, the corporate records will control and the Participant will have no legally binding right to the incorrect term in the Award Agreement or related grant documents.

(c) Stockholder Rights. No Participant will be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to an Award unless and until (i) such Participant has satisfied all requirements for exercise of, or the issuance of shares under, the Award pursuant to its terms, and (ii) the issuance of the Common Stock subject to such Award has been entered into the books and records of the Company.

(d) No Employment or Other Service Rights. Nothing in the Plan, any Award Agreement or any other instrument executed thereunder or in connection with any Award granted pursuant thereto will confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Award was granted or will affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

(e) Change in Time Commitment. In the event a Participant's regular level of time commitment in the performance of his or her services for the Company and any Affiliates is reduced (for example, and without limitation, if the Participant is an Employee of the Company and the Employee has a change in status from a full-time Employee to a part-time Employee or takes an extended leave of absence) after the date of grant of any Award to the Participant, the Board has the right in its sole discretion to (x) make a corresponding reduction in the number of shares or cash amount subject to any portion of such Award that is scheduled to vest or become payable after the date of such change in time commitment, and (y) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Award. In the event of any such reduction or extension, the Participant will have no right with respect to any portion of the Award that is so reduced or extended.

(f) Incentive Stock Option Limitations. To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and any Affiliates) exceeds $100,000 (or such other limit established in the Code) or otherwise does not comply with the rules governing Incentive Stock Options, the Options or portions thereof that exceed such limit (according to the

order in which they were granted) or otherwise do not comply with such rules will be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Option Agreement(s).

(g) Investment Assurances. The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that he or she is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Award; and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, will be inoperative if (A) the issuance of the shares upon the exercise or acquisition of Common Stock under the Award has been registered under a then currently effective registration statement under the Securities Act, or (B) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

(h) Withholding Obligations. Unless prohibited by the terms of an Award Agreement, the Company may, in its sole discretion, satisfy any federal, state or local tax withholding obligation relating to an Award by any of the following means or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Award; *provided, however,* that no shares of Common Stock are withheld with a value exceeding the minimum amount of tax required to be withheld by law (or such lesser amount as may be necessary to avoid classification of the Stock Award as a liability for financial accounting purposes); (iii) withholding cash from an Award settled in cash; (iv) withholding payment from any amounts otherwise payable to the Participant; or (v) by such other method as may be set forth in the Award Agreement.

(i) Electronic Delivery. Any reference herein to a "written" agreement or document will include any agreement or document delivered electronically, filed publicly at www.sec.gov (or any successor website thereto) or posted on the Company's intranet (or other shared electronic medium controlled by the Company to which the Participant has access).

(j) Deferrals. To the extent permitted by applicable law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Award may be deferred and may establish programs and procedures for deferral elections to be made by Participants. Deferrals by Participants will be made in accordance with Section 409A of the Code. Consistent with Section 409A of the Code, the Board may provide for distributions while a Participant is still an employee or otherwise providing services to the Company. The Board is authorized to make

deferrals of Awards and determine when, and in what annual percentages, Participants may receive payments, including lump sum payments, following the Participant's termination of Continuous Service, and implement such other terms and conditions consistent with the provisions of the Plan and in accordance with applicable law.

(k) Compliance with Section 409A. Unless otherwise expressly provided for in an Award Agreement, the Plan and Award Agreements will be interpreted to the greatest extent possible in a manner that makes the Plan and the Awards granted hereunder exempt from Section 409A of the Code, and, to the extent not so exempt, in compliance with Section 409A of the Code. If the Board determines that any Award granted hereunder is not exempt from and is therefore subject to Section 409A of the Code, the Award Agreement evidencing such Award will incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code, and to the extent an Award Agreement is silent on terms necessary for compliance, such terms are hereby incorporated by reference into the Award Agreement. Notwithstanding anything to the contrary in this Plan (and unless the Award Agreement specifically provides otherwise), if the shares of Common Stock are publicly traded, and if a Participant holding an Award that constitutes "deferred compensation" under Section 409A of the Code is a "specified employee" for purposes of Section 409A of the Code, no distribution or payment of any amount that is due because of a "separation from service" (as defined in Section 409A of the Code without regard to alternative definitions thereunder) will be issued or paid before the date that is six months following the date of such Participant's "separation from service" or, if earlier, the date of the Participant's death, unless such distribution or payment can be made in a manner that complies with Section 409A of the Code, and any amounts so deferred will be paid in a lump sum on the day after such six month period elapses, with the balance paid thereafter on the original schedule.

(l) Clawback/Recovery. All Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Board may impose such other clawback, recovery or recoupment provisions in an Award Agreement as the Board determines necessary or appropriate, including but not limited to a reacquisition right in respect of previously acquired shares of Common Stock or other cash or property upon the occurrence of an event constituting Cause. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for "good reason" or "constructive termination" (or similar term) under any agreement with the Company.

9. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; OTHER CORPORATE EVENTS.

(a) Capitalization Adjustments. In the event of a Capitalization Adjustment, the Board will appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a), (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 3(c), (iii) the class(es) and maximum number of securities that may be awarded to any person pursuant to Sections 3(d), and (iv) the class(es) and number of securities and price per share of stock subject to outstanding Stock Awards. The Board will make such adjustments, and its determination will be final, binding and conclusive.

(b) Dissolution or Liquidation. Except as otherwise provided in the Stock Award Agreement, in the event of a dissolution or liquidation of the Company, all outstanding Stock Awards (other than Stock Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company's right of repurchase) will terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company's repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Stock Award is providing Continuous Service; *provided*, *however*, that the Board may, in its sole discretion, cause some or all Stock Awards to become fully vested, exercisable and/or no longer subject to repurchase or forfeiture (to the extent such Stock Awards have not previously expired or terminated) before the dissolution or liquidation is completed but contingent on its completion.

(c) Corporate Transaction. The following provisions will apply to Stock Awards in the event of a Corporate Transaction unless otherwise provided in the instrument evidencing the Stock Award or any other written agreement between the Company or any Affiliate and the Participant or unless otherwise expressly provided by the Board at the time of grant of a Stock Award. In the event of a Corporate Transaction, then, notwithstanding any other provision of the Plan, the Board will take one or more of the following actions with respect to Stock Awards, contingent upon the closing or completion of the Corporate Transaction:

(i) arrange for the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) to assume or continue the Stock Award or to substitute a similar stock award for the Stock Award (including, but not limited to, an award to acquire the same consideration paid to the stockholders of the Company pursuant to the Corporate Transaction);

(ii) arrange for the assignment of any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to the Stock Award to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);

(iii) accelerate the vesting, in whole or in part, of the Stock Award (and, if applicable, the time at which the Stock Award may be exercised) to a date prior to the effective time of such Corporate Transaction as the Board will determine (or, if the Board will not determine such a date, to the date that is five days prior to the effective date of the Corporate Transaction), with such Stock Award terminating if not exercised (if applicable) at or prior to the effective time of the Corporate Transaction;

(iv) arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by the Company with respect to the Stock Award;

(v) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Corporate Transaction, in exchange for such cash consideration, if any, as the Board, in its sole discretion, may consider appropriate; and

(vi) make a payment, in such form as may be determined by the Board equal to the excess, if any, of (A) the value of the property the Participant would have received upon the exercise of the Stock Award immediately prior to the effective time of the Corporate Transaction, over (B) any exercise price payable by such holder in connection with such exercise.

The Board need not take the same action or actions with respect to all Stock Awards or portions thereof or with respect to all Participants. The Board may take different actions with respect to the vested and unvested portions of a Stock Award.

(d) Change in Control. A Stock Award may be subject to additional acceleration of vesting and exercisability upon or after a Change in Control as may be provided in the Stock Award Agreement for such Stock Award or as may be provided in any other written agreement between the Company or any Affiliate and the Participant, but in the absence of such provision, no such acceleration will occur.

10. PLAN TERM; EARLIER TERMINATION OR SUSPENSION OF THE PLAN.

The Board may suspend or terminate the Plan at any time. No Incentive Stock Options may be granted after the tenth anniversary of (i) the date the Plan is adopted by the Board (the "***Adoption Date***") or (ii) the date the Plan is approved by the stockholders of the Company. No Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

11. EXISTENCE OF THE PLAN; TIMING OF FIRST GRANT OR EXERCISE.

The Plan will come into existence on the Adoption Date; provided, however, that no Award may be granted prior to the IPO Date (that is, the Effective Date). In addition, no Stock Award will be exercised (or, in the case of a Restricted Stock Award, Restricted Stock Unit Award, Performance Stock Award, or Other Stock Award, no Stock Award will be granted) and no Performance Cash Award will be settled unless and until the Plan has been approved by the stockholders of the Company, which approval will be within 12 months before or after the date the Plan is adopted by the Board.

12. CHOICE OF LAW.

The law of the State of Delaware will govern all questions concerning the construction, validity and interpretation of the Plan, without regard to that state's conflict of laws rules.

13. DEFINITIONS. As used in the Plan, the following definitions will apply to the capitalized terms indicated below:

(a) "***Affiliate***" means, at the time of determination, any "parent" or "subsidiary" of the Company as such terms are defined in Rule 405 of the Securities Act. The Board will have the authority to determine the time or times at which "parent" or "subsidiary" status is determined within the foregoing definition.

(b) "***Award***" means a Stock Award or a Performance Cash Award.

(c) "***Award Agreement***" means a written agreement between the Company and a Participant evidencing the terms and conditions of an Award.

(d) "***Board***" means the Board of Directors of the Company.

(e) "***Capital Stock***" means each and every class of common stock of the Company, regardless of the number of votes per share.

(f) "***Capitalization Adjustment***" means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Stock Award after the Adoption Date without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, reverse stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

(g) "***Cause***" will have the meaning ascribed to such term in any written agreement between the Participant and the Company defining such term and, in the absence of such agreement, such term shall mean, with respect to a Participant, the occurrence of any of the following events that has a material negative impact on the business or reputation of the Company: (i) such Participant's attempted commission of, or participation in, a fraud or act of dishonesty against the Company; (ii) such Participant's intentional, material violation of any contract or agreement between the Participant and the Company or of any statutory duty owed to the Company; (iii) such Participant's unauthorized use or disclosure of the Company's confidential information or trade secrets; or (iv) such Participant's gross misconduct. The determination that a termination of the Participant's Continuous Service is either for Cause or without Cause shall be made by the Company, in its sole discretion. Any determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Awards held by such Participant shall have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

(h) "***Change in Control***" means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control will not be deemed to occur (A) on account of the acquisition of securities of the Company directly from the Company, (B)

on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company's securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities, (C) on account of the acquisition of securities of the Company by any individual who is, on the IPO Date, either an executive officer or a Director (either, an "***IPO Investor***") and/or any entity in which an IPO Investor has a direct or indirect interest (whether in the form of voting rights or participation in profits or capital contributions) of more than 50% (collectively, the "***IPO Entities***") or on account of the IPO Entities continuing to hold shares that come to represent more than 50% of the combined voting power of the Company's then outstanding securities as a result of the conversion of any class of the Company's securities into another class of the Company's securities having a different number of votes per share pursuant to the conversion provisions set forth in the Company's Amended and Restated Certificate of Incorporation; or (D) solely because the level of Ownership held by any Exchange Act Person (the "***Subject Person***") exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control will be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than 50% of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction; *provided*, *however*, that a merger, consolidation or similar transaction will not constitute a Change in Control under this prong of the definition if the outstanding voting securities representing more than 50% of the combined voting power of the surviving Entity or its parent are owned by the IPO Entities;

(iii) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than 50% of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition; *provided*, *however*, that a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries will not constitute a Change in Control under this prong of the definition if the outstanding voting securities representing more than 50% of the combined voting power of the acquiring Entity or its parent are owned by the IPO Entities; or

(iv) individuals who, on the date the Plan is adopted by the Board, are members of the Board (the "***Incumbent Board***") cease for any reason to constitute at least a majority of the members of the Board; *provided, however*, that if the appointment or election (or nomination for election) of any new Board member was approved or recommended by a majority vote of the members of the Incumbent Board then still in office, such new member will, for purposes of this Plan, be considered as a member of the Incumbent Board.

Notwithstanding the foregoing definition or any other provision of this Plan, the term Change in Control will not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company and the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant will supersede the foregoing definition with respect to Awards subject to such agreement; *provided, however*, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition will apply.

(i) "***Code***" means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(j) "***Committee***" means a committee of one or more Directors to whom authority has been delegated by the Board in accordance with Section 2(c).

(k) "***Common Stock***" means, as of the IPO Date, the common stock of the Company.

(l) "***Company***" means KemPharm, Inc., a Delaware corporation.

(m) "***Consultant***" means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, will not cause a Director to be considered a "Consultant" for purposes of the Plan. Notwithstanding the foregoing, a person is treated as a Consultant under this Plan only if a Form S-8 Registration Statement under the Securities Act is available to register either the offer or the sale of the Company's securities to such person.

(n) "***Continuous Service***" means that the Participant's service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Consultant or Director or a change in the entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant's service with the Company or an Affiliate, will not terminate a Participant's Continuous Service ; *provided, however*, that if the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board, in its sole discretion, such Participant's Continuous Service will be considered to have terminated on the date such Entity ceases to qualify as an Affiliate. To the extent permitted by law, the Board or the chief executive officer

of the Company, in that party's sole discretion, may determine whether Continuous Service will be considered interrupted in the case of (i) any leave of absence approved by the Board or chief executive officer, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors. Notwithstanding the foregoing, a leave of absence will be treated as Continuous Service for purposes of vesting in an Award only to such extent as may be provided in the Company's leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law.

(o) "***Corporate Transaction***" means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) a sale or other disposition of all or substantially all, as determined by the Board, in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) a sale or other disposition of at least 90% of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(p) "***Covered Employee***" will have the meaning provided in Section 162(m)(3) of the Code.

(q) "***Director***" means a member of the Board.

(r) "***Disability***" means, with respect to a Participant, the inability of such Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or that has lasted or can be expected to last for a continuous period of not less than 12 months, as provided in Sections 22(e)(3) and 409A(a)(2)(c)(i) of the Code, and will be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(s) "***Effective Date***" means the IPO Date.

(t) "***Employee***" means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an "Employee" for purposes of the Plan.

(u) "***Entity***" means a corporation, partnership, limited liability company or other entity.

(v) "***Exchange Act***" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(w) "***Exchange Act Person***" means any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that "Exchange Act Person" will not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities.

(x) "***Fair Market Value***" means, as of any date, the value of the Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value of a share of Common Stock will be, unless otherwise determined by the Board, **the closing sales price** for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) **on the date of determination**, as reported in a source the Board deems reliable.

(ii) Unless otherwise provided by the Board, if there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value will be the closing selling price on the last preceding date for which such quotation exists.

(iii) In the absence of such markets for the Common Stock, the Fair Market Value will be determined by the Board in good faith and in a manner that complies with Sections 409A and 422 of the Code.

(y) "***Incentive Stock Option***" means an option granted pursuant to Section 5 of the Plan that is intended to be, and qualifies as, an "incentive stock option" within the meaning of Section 422 of the Code.

(z) "***IPO Date***" means the date of the underwriting agreement between the Company and the underwriter(s) managing the initial public offering of the Common Stock, pursuant to which the Common Stock is priced for the initial public offering.

(aa) "***Non-Employee Director***" means a Director who either (i) is not a current employee or officer of the Company or an Affiliate, does not receive compensation, either directly or indirectly, from the Company or an Affiliate for services rendered as a consultant or in any capacity other than as a Director (except for an amount as to which disclosure would not be required under Item 404(a) of Regulation S-K promulgated pursuant to the Securities Act ("***Regulation S-K***")), does not possess an interest in any other transaction for which disclosure would be required under Item 404(a) of Regulation S-K, and is not engaged in a business relationship for which disclosure would be required pursuant to Item 404(b) of Regulation S-K; or (ii) is otherwise considered a "non-employee director" for purposes of Rule 16b-3.

(bb) "***Nonstatutory Stock Option***" means any Option granted pursuant to Section 5 of the Plan that does not qualify as an Incentive Stock Option.

(cc) "***Officer***" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act.

(dd) "***Option***" means an Incentive Stock Option or a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.

(ee) "***Option Agreement***" means a written agreement between the Company and an Optionholder evidencing the terms and conditions of an Option grant. Each Option Agreement will be subject to the terms and conditions of the Plan.

(ff) "***Optionholder***" means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(gg) "***Other Stock Award***" means an award based in whole or in part by reference to the Common Stock which is granted pursuant to the terms and conditions of Section 6(d).

(hh) "***Other Stock Award Agreement***" means a written agreement between the Company and a holder of an Other Stock Award evidencing the terms and conditions of an Other Stock Award grant. Each Other Stock Award Agreement will be subject to the terms and conditions of the Plan.

(ii) "***Outside Director***" means a Director who either (i) is not a current employee of the Company or an "affiliated corporation" (within the meaning of Treasury Regulations promulgated under Section 162(m) of the Code), is not a former employee of the Company or an "affiliated corporation" who receives compensation for prior services (other than benefits under a tax-qualified retirement plan) during the taxable year, has not been an officer of the Company or an "affiliated corporation," and does not receive remuneration from the Company or an "affiliated corporation," either directly or indirectly, in any capacity other than as a Director, or (ii) is otherwise considered an "outside director" for purposes of Section 162(m) of the Code.

(jj) "***Own***," "***Owned***," "***Owner***," "***Ownership***" means a person or Entity will be deemed to "Own," to have "Owned," to be the "Owner" of, or to have acquired "Ownership" of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

(kk) "***Participant***" means a person to whom an Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.

(ll) "***Performance Cash Award***" means an award of cash granted pursuant to the terms and conditions of Section 6(c)(ii).

(mm) "***Performance Criteria***" means the one or more criteria that the Board will select for purposes of establishing the Performance Goals for a Performance Period. The Performance Criteria that will be used to establish such Performance Goals may be based on any one of, or combination of, the following as determined by the Board: (i) earnings (including earnings per share and net earnings); (ii) earnings before interest, taxes and depreciation; (iii) earnings before interest, taxes, depreciation and amortization; (iv) earnings before interest, taxes, depreciation, amortization and legal settlements; (v) earnings before interest, taxes, depreciation, amortization, legal settlements and other income (expense); (vi) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense) and stock-based compensation; (vii) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation and changes in deferred revenue; (viii) total stockholder return; (ix) return on equity or average stockholder's equity; (x) return on assets, investment, or capital employed; (xi) stock price; (xii) margin (including gross margin); (xiii) income (before or after taxes); (xiv) operating income; (xv) operating income after taxes; (xvi) pre-tax profit; (xvii) operating cash flow; (xviii) sales or revenue targets; (xix) increases in revenue or product revenue; (xx) expenses and cost reduction goals; (xxi) improvement in or attainment of working capital levels; (xxii) economic value added (or an equivalent metric); (xxiii) market share; (xxiv) cash flow; (xxv) cash flow per share; (xxvi) share price performance; (xxvii) debt reduction; (xxviii) implementation or completion of projects or processes; (xxix) customer satisfaction; (xxx) stockholders' equity; (xxxi) capital expenditures; (xxxii) debt levels; (xxxiii) operating profit or net operating profit; (xxxiv) workforce diversity; (xxxv) growth of net income or operating income; (xxxvi) billings; (xxxvii) bookings; (xxxviii) the number of customers, including but not limited to customers users; (xxxix) employee retention; (xl) pre-clinical development related compound goals; (xli) financing; (xlii) regulatory milestones, including approval of a compound; (xliii) stockholder liquidity; (xliv) corporate governance and compliance; (xlv) product commercialization; (xlvi) intellectual property; (xlvii) personnel matters; (xlviii) progress of internal research or clinical programs; (xlix) progress of partnered programs; (l) implementation or completion of projects and processes; (li) partner satisfaction; (lii) budget management; (liii) clinical achievements; (liv) completing phases of a clinical study (including the treatment phase); (lv) announcing or presenting preliminary or final data from clinical studies; in each case, whether on particular timelines or generally; (lvi) timely completion of clinical trials; (lvii) submission of INDs and NDAs and other regulatory achievements; (lviii) partner or collaborator achievements; (lix) internal controls, including those related to the Sarbanes-Oxley Act of 2002; (lx) research progress, including the development of programs; (lxi) investor relations, analysts and communication; (lxii) manufacturing achievements (including obtaining particular yields from manufacturing runs and other measurable objectives related to process development activities); (lxiii) strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property; (lxiv) establishing relationships with commercial entities with respect to the marketing, distribution and sale of the Company's products (including with group purchasing organizations, distributors and other vendors); (lxv) supply chain achievements (including establishing relationships with manufacturers or suppliers of active pharmaceutical ingredients and other component materials and manufacturers of the Company's products); (lxvi) co-development, co-marketing, profit sharing, joint venture or other similar arrangements; and (lxvii) and to the extent that an Award is not intended to comply with Section 162(m) of the Code, other measures of performance selected by the Board.

(nn) "***Performance Goals***" means, for a Performance Period, the one or more goals established by the Board for the Performance Period based upon the Performance Criteria. Performance Goals may be based on a Company-wide basis, with respect to one or more business units, divisions, Affiliates, or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by the Board (i) in the Award Agreement at the time the Award is granted or (ii) in such other document setting forth the Performance Goals at the time the Performance Goals are established, the Board will appropriately make adjustments in the method of calculating the attainment of Performance Goals for a Performance Period as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of any "extraordinary items" as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by the Company achieved performance objectives at targeted levels during the balance of a Performance Period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of common stock of the Company by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and the award of bonuses under the Company's bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to expensed under generally accepted accounting principles; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles, (12) to exclude the effects of the timing of acceptance for review and/or approval of submissions to the Food and Drug Administration or any other regulatory body and (13) to exclude the effect of any other unusual, non-recurring gain or loss or other extraordinary item. In addition, the Board retains the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for such Performance Period. Partial achievement of the specified criteria may result in the payment or vesting corresponding to the degree of achievement as specified in the Stock Award Agreement or the written terms of a Performance Cash Award.

(oo) "***Performance Period***" means the period of time selected by the Board over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Participant's right to and the payment of a Stock Award or a Performance Cash Award. Performance Periods may be of varying and overlapping duration, at the sole discretion of the Board.

(pp) "***Performance Stock Award***" means a Stock Award granted under the terms and conditions of Section 6(c)(i).

(qq) "***Plan***" means this KemPharm, Inc. 2014 Equity Incentive Plan, as it may be amended.

(rr) "***Restricted Stock Award***" means an award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(a).

(ss) "***Restricted Stock Award Agreement***" means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award grant. Each Restricted Stock Award Agreement will be subject to the terms and conditions of the Plan.

(tt) "***Restricted Stock Unit Award***" means a right to receive shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(b).

(uu) "***Restricted Stock Unit Award Agreement***" means a written agreement between the Company and a holder of a Restricted Stock Unit Award evidencing the terms and conditions of a Restricted Stock Unit Award grant. Each Restricted Stock Unit Award Agreement will be subject to the terms and conditions of the Plan.

(vv) "***Rule 16b-3***" means Rule 16b-3 promulgated under the Exchange Act or any successor to Rule 16b-3, as in effect from time to time.

(ww) "***Securities Act***" means the Securities Act of 1933, as amended.

(xx) "***Stock Appreciation Right***" or "***SAR***" means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 5.

(yy) "***Stock Appreciation Right Agreement***" means a written agreement between the Company and a holder of a Stock Appreciation Right evidencing the terms and conditions of a Stock Appreciation Right grant. Each Stock Appreciation Right Agreement will be subject to the terms and conditions of the Plan.

(zz) "***Stock Award***" means any right to receive Common Stock granted under the Plan, including an Incentive Stock Option, a Nonstatutory Stock Option, a Restricted Stock Award, a Restricted Stock Unit Award, a Stock Appreciation Right, a Performance Stock Award or any Other Stock Award.

(aaa) "***Stock Award Agreement***" means a written agreement between the Company and a Participant evidencing the terms and conditions of a Stock Award grant. Each Stock Award Agreement will be subject to the terms and conditions of the Plan.

(bbb) "***Subsidiary***" means, with respect to the Company, (i) any corporation of which more than 50% of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation will have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than 50%.

(ccc) "***Ten Percent Stockholder***" means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than ten percent of the total combined voting power of all classes of stock of the Company or any Affiliate.

KEMPHARM, INC.
STOCK OPTION GRANT NOTICE
(2014 EQUITY INCENTIVE PLAN)

KemPharm, Inc. (the "***Company***"), pursuant to its 2014 Equity Incentive Plan (the "***Plan***"), hereby grants to Optionholder an option to purchase the number of shares of the Company's Common Stock set forth below. This option is subject to all of the terms and conditions as set forth in this notice, in the Option Agreement, the Plan and the Notice of Exercise, all of which are attached hereto and incorporated herein in their entirety. Capitalized terms not explicitly defined herein but defined in the Plan or the Option Agreement will have the same definitions as in the Plan or the Option Agreement. If there is any conflict between the terms in this notice and the Plan, the terms of the Plan will control.

Optionholder:	_____
Date of Grant:	_____
Vesting Commencement Date:	_____
Number of Shares Subject to Option:	_____
Exercise Price (Per Share):	_____
Total Exercise Price:	_____
Expiration Date:	_____

Type of Grant: ☐ Incentive Stock Option[1] ☐ Nonstatutory Stock Option

Exercise Schedule: ☐ Same as Vesting Schedule ☐ Early Exercise Permitted

Vesting Schedule: [As determined by the Board of Directors]

Payment: By one or a combination of the following items (described in the Option Agreement):

☐ By cash, check, bank draft or money order payable to the Company
☐ Pursuant to a Regulation T Program if the shares are publicly traded
☐ By delivery of already-owned shares if the shares are publicly traded
☐ If and only to the extent this option is a Nonstatutory Stock Option, and subject to the Company's consent at the time of exercise, by a "net exercise" arrangement

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1 If this is an Incentive Stock Option, it (plus other outstanding Incentive Stock Options) cannot be first *exercisable* for more than $100,000 in value (measured by exercise price) in any calendar year. Any excess over $100,000 is a Nonstatutory Stock Option.

Additional Terms/Acknowledgements: Optionholder acknowledges receipt of, and understands and agrees to, this Stock Option Grant Notice, the Option Agreement and the Plan. Optionholder acknowledges and agrees that this Stock Option Grant Notice and the Option Agreement may not be modified, amended or revised except as provided in the Plan. Optionholder further acknowledges that as of the Date of Grant, this Stock Option Grant Notice, the Option Agreement, and the Plan set forth the entire understanding between Optionholder and the Company regarding this option award and supersede all prior oral and written agreements, promises and/or representations on that subject with the exception of (i) options previously granted and delivered to Optionholder, (ii) any compensation recovery policy that is adopted by the Company or is otherwise required by applicable law and (iii) any written employment or severance arrangement that would provide for vesting acceleration of this option upon the terms and conditions set forth therein. By accepting this option, Optionholder consents to receive such documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

KEMPHARM, INC.

By: _____
Signature

Title: _____

Date: _____

OPTIONHOLDER:

_____
Signature

Date: _____

ATTACHMENTS: Option Agreement, 2014 Equity Incentive Plan and Notice of Exercise

ATTACHMENT I

KEMPHARM, INC.
2014 EQUITY INCENTIVE PLAN

OPTION AGREEMENT
(INCENTIVE STOCK OPTION OR NONSTATUTORY STOCK OPTION)

Pursuant to your Stock Option Grant Notice ("***Grant Notice***") and this Option Agreement, KemPharm, Inc. (the "***Company***") has granted you an option under its 2014 Equity Incentive Plan (the "***Plan***") to purchase the number of shares of the Company's Common Stock indicated in your Grant Notice at the exercise price indicated in your Grant Notice. The option is granted to you effective as of the date of grant set forth in the Grant Notice (the "***Date of Grant***"). If there is any conflict between the terms in this Option Agreement and the Plan, the terms of the Plan will control. Capitalized terms not explicitly defined in this Option Agreement or in the Grant Notice but defined in the Plan will have the same definitions as in the Plan.

The details of your option, in addition to those set forth in the Grant Notice and the Plan, are as follows:

1. VESTING. Subject to the provisions contained herein, your option will vest as provided in your Grant Notice. Vesting will cease upon the termination of your Continuous Service.

2. NUMBER OF SHARES AND EXERCISE PRICE. The number of shares of Common Stock subject to your option and your exercise price per share in your Grant Notice will be adjusted for Capitalization Adjustments.

3. EXERCISE RESTRICTION FOR NON-EXEMPT EMPLOYEES. If you are an Employee eligible for overtime compensation under the Fair Labor Standards Act of 1938, as amended (that is, a "***Non-Exempt Employee***"), and except as otherwise provided in the Plan, you may not exercise your option until you have completed at least six (6) months of Continuous Service measured from the Date of Grant, even if you have already been an employee for more than six (6) months. Consistent with the provisions of the Worker Economic Opportunity Act, you may exercise your option as to any vested portion prior to such six (6) month anniversary in the case of (i) your death or disability, (ii) a Corporate Transaction in which your option is not assumed, continued or substituted, (iii) a Change in Control or (iv) your termination of Continuous Service on your "retirement" (as defined in the Company's benefit plans).

4. EXERCISE PRIOR TO VESTING ("EARLY EXERCISE"). You may not exercise your option prior to vesting.

5. METHOD OF PAYMENT. You must pay the full amount of the exercise price for the shares you wish to exercise. You may pay the exercise price in cash or by check, bank draft or money order payable to the Company or in any other manner ***permitted by your Grant Notice,*** which may include one or more of the following:

(a) Provided that at the time of exercise the Common Stock is publicly traded, pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of Common Stock, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds. This manner of payment is also known as a "broker-assisted exercise", "same day sale", or "sell to cover".

(b) Provided that at the time of exercise the Common Stock is publicly traded, by delivery to the Company (either by actual delivery or attestation) of already-owned shares of Common Stock that are owned free and clear of any liens, claims, encumbrances or security interests, and that are valued at Fair Market Value on the date of exercise. "Delivery" for these purposes, in the sole discretion of the Company at the time you exercise your option, will include delivery to the Company of your attestation of ownership of such shares of Common Stock

in a form approved by the Company. You may not exercise your option by delivery to the Company of Common Stock if doing so would violate the provisions of any law, regulation or agreement restricting the redemption of the Company's stock.

(c) If this option is a Nonstatutory Stock Option, subject to the consent of the Company at the time of exercise, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issued upon exercise of your option by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price. You must pay any remaining balance of the aggregate exercise price not satisfied by the "net exercise" in cash or other permitted form of payment. Shares of Common Stock will no longer be outstanding under your option and will not be exercisable thereafter if those shares (i) are used to pay the exercise price pursuant to the "net exercise," (ii) are delivered to you as a result of such exercise, and (iii) are withheld to satisfy your tax withholding obligations.

6. WHOLE SHARES. You may exercise your option only for whole shares of Common Stock.

7. SECURITIES LAW COMPLIANCE. In no event may you exercise your option unless the shares of Common Stock issuable upon exercise are then registered under the Securities Act or, if not registered, the Company has determined that your exercise and the issuance of the shares would be exempt from the registration requirements of the Securities Act. The exercise of your option also must comply with all other applicable laws and regulations governing your option, and you may not exercise your option if the Company determines that such exercise would not be in material compliance with such laws and regulations (including any restrictions on exercise required for compliance with Treas. Reg. 1.401(k)-1(d)(3), if applicable).

8. TERM. You may not exercise your option before the Date of Grant or after the expiration of the option's term. The term of your option expires, subject to the provisions of Section 5(h) of the Plan, upon the earliest of the following:

(a) immediately upon the termination of your Continuous Service for Cause;

(b) three (3) months after the termination of your Continuous Service for any reason other than Cause, your Disability or your death (except as otherwise provided in Section 8(d) below); *provided, however,* that if during any part of such three (3) month period your option is not exercisable solely because of the condition set forth in the section above relating to "Securities Law Compliance," your option will not expire until the earlier of the Expiration Date or until it has been exercisable for an aggregate period of three (3) months after the termination of your Continuous Service; *provided further,* if during any part of such three (3) month period, the sale of any Common Stock received upon exercise of your option would violate the Company's insider trading policy, then your option will not expire until the earlier of the Expiration Date or until it has been exercisable for an aggregate period of three (3) months after the termination of your Continuous Service during which the sale of the Common Stock received upon exercise of your option would not be in violation of the Company's insider trading policy. Notwithstanding the foregoing, if (i) you are a Non-Exempt Employee, (ii) your Continuous Service terminates within six (6) months after the Date of Grant, and (iii) you have vested in a portion of your option at the time of your termination of Continuous Service, your option will not expire until the earlier of (x) the later of (A) the date that is seven (7) months after the Date of Grant, and (B) the date that is three (3) months after the termination of your Continuous Service, and (y) the Expiration Date;

(c) twelve (12) months after the termination of your Continuous Service due to your Disability (except as otherwise provided in Section 8(d)) below;

(d) eighteen (18) months after your death if you die either during your Continuous Service or within three (3) months after your Continuous Service terminates for any reason other than Cause;

(e) the Expiration Date indicated in your Grant Notice; or

(f) the day before the tenth (10th) anniversary of the Date of Grant.

If your option is an Incentive Stock Option, note that to obtain the federal income tax advantages associated with an Incentive Stock Option, the Code requires that at all times beginning on the Date of Grant and ending on the day three (3) months before the date of your option's exercise, you must be an employee of the Company or an Affiliate, except in the event of your death or Disability. The Company has provided for extended exercisability of your option under certain circumstances for your benefit but cannot guarantee that your option will necessarily be treated as an Incentive Stock Option if you continue to provide services to the Company or an Affiliate as a Consultant or Director after your employment terminates or if you otherwise exercise your option more than three (3) months after the date your employment with the Company or an Affiliate terminates.

9. EXERCISE.

(a) You may exercise the vested portion of your option (and the unvested portion of your option if your Grant Notice so permits) during its term by (i) delivering a Notice of Exercise (in a form designated by the Company) or completing such other documents and/or procedures designated by the Company for exercise and (ii) paying the exercise price and any applicable withholding taxes to the Company's Secretary, stock plan administrator, or such other person as the Company may designate, together with such additional documents as the Company may then require.

(b) By exercising your option you agree that, as a condition to any exercise of your option, the Company may require you to enter into an arrangement providing for the payment by you to the Company of any tax withholding obligation of the Company arising by reason of (i) the exercise of your option, (ii) the lapse of any substantial risk of forfeiture to which the shares of Common Stock are subject at the time of exercise, or (iii) the disposition of shares of Common Stock acquired upon such exercise.

(c) If your option is an Incentive Stock Option, by exercising your option you agree that you will notify the Company in writing within fifteen (15) days after the date of any disposition of any of the shares of the Common Stock issued upon exercise of your option that occurs within two (2) years after the Date of Grant or within one (1) year after such shares of Common Stock are transferred upon exercise of your option.

(d) By accepting your option you agree that you will not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale, any shares of Common Stock or other securities of the Company held by you, for a period of one hundred eighty (180) days following the effective date of a registration statement of the Company filed under the Securities Act or such longer period as the underwriters or the Company will request to facilitate compliance with FINRA Rule 2711 or NYSE Member Rule 472 or any successor or similar rules or regulation (the "***Lock-Up Period***"); *provided, however*, that nothing contained in this section will prevent the exercise of a repurchase option, if any, in favor of the Company during the Lock-Up Period. You further agree to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to your shares of Common Stock until the end of such period. You also agree that any transferee of any shares of Common Stock (or other securities) of the Company held by you will be bound by this Section 9(d). The underwriters of the Company's stock are intended third party beneficiaries of this Section 9(d) and will have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

10. TRANSFERABILITY. Except as otherwise provided in this Section 10, your option is not transferable, except by will or by the laws of descent and distribution, and is exercisable during your life only by you.

(a) Certain Trusts. Upon receiving written permission from the Board or its duly authorized designee, you may transfer your option to a trust if you are considered to be the sole beneficial owner (determined under Section 671 of the Code and applicable state law) while the option is held in the trust. You and the trustee must enter into transfer and other agreements required by the Company.

(b) Domestic Relations Orders. Upon receiving written permission from the Board or its duly authorized designee, and provided that you and the designated transferee enter into transfer and other

agreements required by the Company, you may transfer your option pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument as permitted by Treasury Regulation 1.421-1(b)(2) that contains the information required by the Company to effectuate the transfer. You are encouraged to discuss the proposed terms of any division of this option with the Company prior to finalizing the domestic relations order or marital settlement agreement to help ensure the required information is contained within the domestic relations order or marital settlement agreement. If this option is an Incentive Stock Option, this option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(c) Beneficiary Designation. Upon receiving written permission from the Board or its duly authorized designee, you may, by delivering written notice to the Company, in a form approved by the Company and any broker designated by the Company to handle option exercises, designate a third party who, on your death, will thereafter be entitled to exercise this option and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, your executor or administrator of your estate will be entitled to exercise this option and receive, on behalf of your estate, the Common Stock or other consideration resulting from such exercise.

11. OPTION NOT A SERVICE CONTRACT. Your option is not an employment or service contract, and nothing in your option will be deemed to create in any way whatsoever any obligation on your part to continue in the employ of the Company or an Affiliate, or of the Company or an Affiliate to continue your employment. In addition, nothing in your option will obligate the Company or an Affiliate, their respective stockholders, boards of directors, officers or employees to continue any relationship that you might have as a Director or Consultant for the Company or an Affiliate.

12. WITHHOLDING OBLIGATIONS.

(a) At the time you exercise your option, in whole or in part, and at any time thereafter as requested by the Company, you hereby authorize withholding from payroll and any other amounts payable to you, and otherwise agree to make adequate provision for (including by means of a “same day sale” pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board to the extent permitted by the Company), any sums required to satisfy the federal, state, local and foreign tax withholding obligations of the Company or an Affiliate, if any, which arise in connection with the exercise of your option.

(b) If this option is a Nonstatutory Stock Option, then upon your request and subject to approval by the Company, and compliance with any applicable legal conditions or restrictions, the Company may withhold from fully vested shares of Common Stock otherwise issuable to you upon the exercise of your option a number of whole shares of Common Stock having a Fair Market Value, determined by the Company as of the date of exercise, not in excess of the minimum amount of tax required to be withheld by law (or such lower amount as may be necessary to avoid classification of your option as a liability for financial accounting purposes). If the date of determination of any tax withholding obligation is deferred to a date later than the date of exercise of your option, share withholding pursuant to the preceding sentence shall not be permitted unless you make a proper and timely election under Section 83(b) of the Code, covering the aggregate number of shares of Common Stock acquired upon such exercise with respect to which such determination is otherwise deferred, to accelerate the determination of such tax withholding obligation to the date of exercise of your option. Notwithstanding the filing of such election, shares of Common Stock shall be withheld solely from fully vested shares of Common Stock determined as of the date of exercise of your option that are otherwise issuable to you upon such exercise. Any adverse consequences to you arising in connection with such share withholding procedure shall be your sole responsibility.

(c) You may not exercise your option unless the tax withholding obligations of the Company and/or any Affiliate are satisfied. Accordingly, you may not be able to exercise your option when desired even though your option is vested, and the Company will have no obligation to issue a certificate for such shares of Common Stock or release such shares of Common Stock from any escrow provided for herein, if applicable, unless such obligations are satisfied.

13. TAX CONSEQUENCES. You hereby agree that the Company does not have a duty to design or administer the Plan or its other compensation programs in a manner that minimizes your tax liabilities. You will not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates related to tax

liabilities arising from your option or your other compensation. In particular, you acknowledge that this option is exempt from Section 409A of the Code only if the exercise price per share specified in the Grant Notice is at least equal to the "fair market value" per share of the Common Stock on the Date of Grant and there is no other impermissible deferral of compensation associated with the option.

14. NOTICES. Any notices provided for in your option or the Plan will be given in writing (including electronically) and will be deemed effectively given upon receipt or, in the case of notices delivered by mail by the Company to you, five (5) days after deposit in the United States mail, postage prepaid, addressed to you at the last address you provided to the Company. The Company may, in its sole discretion, decide to deliver any documents related to participation in the Plan and this option by electronic means or to request your consent to participate in the Plan by electronic means. By accepting this option, you consent to receive such documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

15. GOVERNING PLAN DOCUMENT. Your option is subject to all the provisions of the Plan, the provisions of which are hereby made a part of your option, and is further subject to all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. If there is any conflict between the provisions of your option and those of the Plan, the provisions of the Plan will control. In addition, your option (and any compensation paid or shares issued under your option) is subject to recoupment in accordance with The Dodd–Frank Wall Street Reform and Consumer Protection Act and any implementing regulations thereunder, any clawback policy adopted by the Company and any compensation recovery policy otherwise required by applicable law.

16. OTHER DOCUMENTS. You hereby acknowledge receipt of and the right to receive a document providing the information required by Rule 428(b)(1) promulgated under the Securities Act, which includes the Plan prospectus. In addition, you acknowledge receipt of the Company's policy permitting certain individuals to sell shares only during certain "window" periods and the Company's insider trading policy, in effect from time to time.

17. EFFECT ON OTHER EMPLOYEE BENEFIT PLANS. The value of this option will not be included as compensation, earnings, salaries, or other similar terms used when calculating your benefits under any employee benefit plan sponsored by the Company or any Affiliate, except as such plan otherwise expressly provides. The Company expressly reserves its rights to amend, modify, or terminate any of the Company's or any Affiliate's employee benefit plans.

18. VOTING RIGHTS. You will not have voting or any other rights as a stockholder of the Company with respect to the shares to be issued pursuant to this option until such shares are issued to you. Upon such issuance, you will obtain full voting and other rights as a stockholder of the Company. Nothing contained in this option, and no action taken pursuant to its provisions, will create or be construed to create a trust of any kind or a fiduciary relationship between you and the Company or any other person.

19. SEVERABILITY. If all or any part of this Option Agreement or the Plan is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity will not invalidate any portion of this Option Agreement or the Plan not declared to be unlawful or invalid. Any Section of this Option Agreement (or part of such a Section) so declared to be unlawful or invalid shall, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

20. MISCELLANEOUS.

(a) The rights and obligations of the Company under your option will be transferable to any one or more persons or entities, and all covenants and agreements hereunder will inure to the benefit of, and be enforceable by the Company's successors and assigns.

(b) You agree upon request to execute any further documents or instruments necessary or desirable in the sole determination of the Company to carry out the purposes or intent of your option.

(c) You acknowledge and agree that you have reviewed your option in its entirety, have had an opportunity to obtain the advice of counsel prior to executing and accepting your option, and fully understand all provisions of your option.

(d) This Option Agreement will be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

(e) All obligations of the Company under the Plan and this Option Agreement will be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business and/or assets of the Company.

* * *

This Option Agreement will be deemed to be signed by you upon the signing by you of the Stock Option Grant Notice to which it is attached.

ATTACHMENT III

NOTICE OF EXERCISE

KemPharm, Inc.
2656 Crosspark Road, Suite 100
Coralville, IA 52241

Date of Exercise: _____

Ladies and Gentlemen:

This constitutes notice to KemPharm, Inc. (the "***Company***") under my stock option described below (the "***Option***") granted pursuant to the Company's 2014 Equity Incentive Plan (as it may be amended from time to time) as evidenced by the Stock Option Grant Notice and Option Agreement thereunder, that I elect to purchase the below number of shares of Common Stock of the Company (the "***Shares***") for the price set forth below.

Type of option (check one):	Incentive ☐	Nonstatutory ☐
Option Grant Date:	_____	_____
Number of Shares as to which the Option is exercised:	_____	_____
Certificates to be issued in name of:	_____	_____
Total exercise price:	$_____	$_____
Cash payment delivered herewith:	$_____	$_____
[Value of _____ Shares delivered herewith[1]:	$_____	$_____]
[Value of _____ Shares pursuant to net exercise[2]:	$_____	$_____]
[Regulation T Program (cashless exercise[3]):	$_____	$_____]

By this exercise, I agree (i) to provide such additional documents as you may require pursuant to the terms of the Company's 2014 Equity Incentive Plan (as it may be amended from time to time), (ii) to provide for the

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1 Shares must meet the public trading requirements set forth in the option agreement. Shares must be valued in accordance with the terms of the Option being exercised, and must be owned free and clear of any liens, claims, encumbrances or security interests. Certificates must be endorsed or accompanied by an executed assignment separate from certificate.

2 The Option must be a Nonstatutory Stock Option, and KemPharm, Inc. must have established net exercise procedures at the time of exercise, in order to utilize this payment method.

3 Shares must meet the public trading requirements set forth in the option agreement.

payment by me to the Company (in the manner designated by the Company) of the Company's withholding obligation, if any, relating to the exercise of the Option, and (iii) if this exercise relates to an Incentive Stock Option, to notify you in writing within 15 days after the date of any disposition of any of the Shares issued upon exercise of the Option that occurs within two years after the date of grant of the Option or within one year after such Shares are issued upon exercise of the Option.

Very truly yours,

_____

Signature

_____

Print Name

KEMPHARM, INC.
RESTRICTED STOCK UNIT GRANT NOTICE
(2014 EQUITY INCENTIVE PLAN)

KemPharm, Inc. (the "***Company***"), pursuant to Section 6(b) of the Company's 2014 Equity Incentive Plan (the "***Plan***"), hereby awards to Participant a Restricted Stock Unit Award for the number of shares of the Company's Common Stock ("***Restricted Stock Units***") set forth below (the "***Award***"). The Award is subject to all of the terms and conditions as set forth in this notice of grant (this "***Restricted Stock Unit Grant Notice***") and in the Plan and the Restricted Stock Unit Award Agreement (the "***Award Agreement***"), both of which are attached hereto and incorporated herein in their entirety. Capitalized terms not otherwise defined herein shall have the meanings set forth in the Plan or the Award Agreement. In the event of any conflict between the terms in the Award and the Plan, the terms of the Plan shall control.

Participant:	_____
ID:	_____
Date of Grant:	_____
Grant Number:	_____
Vesting Commencement Date:	_____
Number of Restricted Stock Units/Shares:	_____

Vesting Schedule: The shares subject to the Award shall vest as follows:
[To be Determined by the Board of Directors].

Issuance Schedule: Subject to any change on a Capitalization Adjustment, one share of Common Stock will be issued for each Restricted Stock Unit that vests at the time set forth in Section 6 of the Award Agreement.

Additional Terms/Acknowledgements: Participant acknowledges receipt of, and understands and agrees to, this Restricted Stock Unit Grant Notice, the Award Agreement and the Plan. Participant further acknowledges that as of the Date of Grant, this Restricted Stock Unit Grant Notice, the Award Agreement and the Plan set forth the entire understanding between Participant and the Company regarding the acquisition of the Common Stock pursuant to the Award specified above and supersede all prior oral and written agreements on the terms of this Award with the exception, if applicable, of (i) the written employment agreement or offer letter agreement entered into between the Company and Participant specifying the terms that should govern this specific Award, and (ii) any compensation recovery policy that is adopted by the Company or is otherwise required by applicable law.

By accepting this Award, Participant acknowledges having received and read the Restricted Stock Unit Grant Notice, the Award Agreement and the Plan and agrees to all of the terms and conditions set forth in these documents. Participant consents to receive Plan documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

Other Agreements: _____

KEMPHARM, INC.

By: _____
Signature

Title: _____

Date: _____

PARTICIPANT

_____
Signature

Date: _____

ATTACHMENTS: Award Agreement and 2014 Equity Incentive Plan

KEMPHARM, INC.
2014 EQUITY INCENTIVE PLAN
RESTRICTED STOCK UNIT AWARD AGREEMENT

Pursuant to the Restricted Stock Unit Grant Notice (the "***Grant Notice***") and this Restricted Stock Unit Award Agreement (the "***Agreement***"), KemPharm, Inc. (the "***Company***") has awarded you ("***Participant***") a Restricted Stock Unit Award (the "***Award***") pursuant to Section 6(b) of the Company's 2014 Equity Incentive Plan (the "***Plan***") for the number of Restricted Stock Units/shares indicated in the Grant Notice. Capitalized terms not explicitly defined in this Agreement or the Grant Notice shall have the same meanings given to them in the Plan. The terms of your Award, in addition to those set forth in the Grant Notice, are as follows.

1. GRANT OF THE AWARD. This Award represents the right to be issued on a future date one (1) share of Common Stock for each Restricted Stock Unit that vests on the applicable vesting date(s) (subject to any adjustment under Section 3 below) as indicated in the Grant Notice. As of the Date of Grant, the Company will credit to a bookkeeping account maintained by the Company for your benefit (the "***Account***") the number of Restricted Stock Units/shares of Common Stock subject to the Award. This Award was granted in consideration of your services to the Company.

2. VESTING. Subject to the limitations contained herein, your Award will vest, if at all, in accordance with the vesting schedule provided in the Grant Notice, provided that vesting will cease upon the termination of your Continuous Service. Upon such termination of your Continuous Service, the Restricted Stock Units/shares of Common Stock credited to the Account that were not vested on the date of such termination will be forfeited at no cost to the Company and you will have no further right, title or interest in or to such underlying shares of Common Stock.

3. NUMBER OF SHARES. The number of Restricted Stock Units/shares subject to your Award may be adjusted from time to time for Capitalization Adjustments, as provided in the Plan. Any additional Restricted Stock Units, shares, cash or other property that becomes subject to the Award pursuant to this Section 3, if any, shall be subject, in a manner determined by the Board, to the same forfeiture restrictions, restrictions on transferability, and time and manner of delivery as applicable to the other Restricted Stock Units and shares covered by your Award. Notwithstanding the provisions of this Section 3, no fractional shares or rights for fractional shares of Common Stock shall be created pursuant to this Section 3. Any fraction of a share will be rounded down to the nearest whole share.

4. SECURITIES LAW COMPLIANCE. You may not be issued any Common Stock under your Award unless the shares of Common Stock underlying the Restricted Stock Units are either (i) then registered under the Securities Act, or (ii) the Company has determined that such issuance would be exempt from the registration requirements of the Securities Act. Your Award must also comply with other applicable laws and regulations governing the Award, and you shall not receive such Common Stock if the Company determines that such receipt would not be in material compliance with such laws and regulations.

5. TRANSFER RESTRICTIONS. Prior to the time that shares of Common Stock have been delivered to you, you may not transfer, pledge, sell or otherwise dispose of this Award or the shares issuable in respect of your Award, except as expressly provided in this Section 5. For example, you may not use shares that may be issued in respect of your Restricted Stock Units as security for a loan. The restrictions on transfer set forth herein will lapse upon delivery to you of shares in respect of your vested Restricted Stock Units.

(a) Death. Your Award is transferable by will and by the laws of descent and distribution. At your death, vesting of your Award will cease and your executor or administrator of your estate shall be entitled to receive, on behalf of your estate, any Common Stock or other consideration that vested but was not issued before your death.

(b) Domestic Relations Orders. Upon receiving written permission from the Board or its duly authorized designee, and provided that you and the designated transferee enter into transfer and other agreements required by the Company, you may transfer your right to receive the distribution of Common Stock or other consideration hereunder, pursuant to a domestic relations order or marital settlement agreement that contains the information required by the Company to effectuate the transfer. You are encouraged to discuss the proposed terms of any division of this Award with the Company General Counsel prior to finalizing the domestic relations order or marital settlement agreement to verify that you may make such transfer, and if so, to help ensure the required information is contained within the domestic relations order or marital settlement agreement.

6. DATE OF ISSUANCE.

(a) The issuance of shares in respect of the Restricted Stock Units is intended to comply with Treasury Regulations Section 1.409A-1(b)(4) and will be construed and administered in such a manner. Subject to the satisfaction of the withholding obligations set forth in this Agreement, in the event one or more Restricted Stock Units vests, the Company shall issue to you one (1) share of Common Stock for each Restricted Stock Unit that vests on the applicable vesting date(s) (subject to any adjustment under Section 3 above). The issuance date determined by this paragraph is referred to as the "***Original Issuance Date***".

(b) If the Original Issuance Date falls on a date that is not a business day, delivery shall instead occur on the next following business day. In addition, if:

(i) the Original Issuance Date does not occur (1) during an "open window period" applicable to you, as determined by the Company in accordance with the Company's then-effective policy on trading in Company securities, or (2) on a date when you are otherwise permitted to sell shares of Common Stock on an established stock exchange or stock market, *and*

(ii) either (1) Withholding Taxes do not apply, or (2) the Company decides, prior to the Original Issuance Date, (A) not to satisfy the Withholding Taxes by withholding shares of Common Stock from the shares otherwise due, on the Original Issuance Date, to you under this Award, and (B) not to permit you to pay your Withholding Taxes in cash,

then the shares that would otherwise be issued to you on the Original Issuance Date will not be delivered on such Original Issuance Date and will instead be delivered on the first business day when you are not prohibited from selling shares of the Company's Common Stock in the open public market, but in no event later than December 31 of the calendar year in which the Original Issuance Date occurs (that is, the last day of your taxable year in which the Original Issuance Date occurs), or, if and only if permitted in a manner that complies with Treasury Regulations Section 1.409A-1(b)(4), no later than the date that is the 15th day of the third calendar month of the applicable year following the year in which the shares of Common Stock under this Award are no longer subject to a "substantial risk of forfeiture" within the meaning of Treasury Regulations Section 1.409A-1(d).

(c) The form of delivery (e.g., a stock certificate or electronic entry evidencing such shares) shall be determined by the Company.

7. DIVIDENDS. You shall receive no benefit or adjustment to your Award with respect to any cash dividend, stock dividend or other distribution that does not result from a Capitalization Adjustment.

8. RESTRICTIVE LEGENDS. The shares of Common Stock issued under your Award shall be endorsed with appropriate legends as determined by the Company.

9. EXECUTION OF DOCUMENTS. You hereby acknowledge and agree that the manner selected by the Company by which you indicate your consent to your Grant Notice is also deemed to be your execution of your Grant Notice and of this Agreement. You further agree that such manner of indicating consent may be relied upon as your signature for establishing your execution of any documents to be executed in the future in connection with your Award.

10. AWARD NOT A SERVICE CONTRACT.

(a) Nothing in this Agreement (including, but not limited to, the vesting of your Award or the issuance of the shares subject to your Award), the Plan or any covenant of good faith and fair dealing that may be found implicit in this Agreement or the Plan shall: (i) confer upon you any right to continue in the employ of, or affiliation with, the Company or an Affiliate; (ii) constitute any promise or commitment by the Company or an Affiliate regarding the fact or nature of future positions, future work assignments, future compensation or any other term or condition of employment or affiliation; (iii) confer any right or benefit under this Agreement or the Plan unless such right or benefit has specifically accrued under the terms of this Agreement or Plan; or (iv) deprive the Company of the right to terminate you at will and without regard to any future vesting opportunity that you may have.

(b) The Company has the right to reorganize, sell, spin-out or otherwise restructure one or more of its businesses or Affiliates at any time or from time to time, as it deems appropriate (a "***reorganization***"). Such a reorganization could result in the termination of your Continuous Service, or the termination of Affiliate status of your employer and the loss of benefits available to you under this Agreement, including but not limited to, the termination of the right to continue vesting in the Award. This Agreement, the Plan, the transactions contemplated hereunder and the vesting schedule set forth herein or any covenant of good faith

and fair dealing that may be found implicit in any of them do not constitute an express or implied promise of continued engagement as an employee or consultant for the term of this Agreement, for any period, or at all, and shall not interfere in any way with the Company's right to conduct a reorganization.

11. WITHHOLDING OBLIGATIONS.

(a) On each vesting date, and on or before the time you receive a distribution of the shares underlying your Restricted Stock Units, and at any other time as reasonably requested by the Company in accordance with applicable tax laws, you hereby authorize any required withholding from the Common Stock issuable to you and/or otherwise agree to make adequate provision in cash for any sums required to satisfy the federal, state, local and foreign tax withholding obligations of the Company or any Affiliate that arise in connection with your Award (the "***Withholding Taxes***"). Additionally, the Company or any Affiliate may, in its sole discretion, satisfy all or any portion of the Withholding Taxes obligation relating to your Award by any of the following means or by a combination of such means: (i) withholding from any compensation otherwise payable to you by the Company; (ii) causing you to tender a cash payment; (iii) permitting or requiring you to enter into a "same day sale" commitment, if applicable, with a broker-dealer that is a member of the Financial Industry Regulatory Authority (a "***FINRA Dealer***") whereby you irrevocably elect to sell a portion of the shares to be delivered in connection with your Restricted Stock Units to satisfy the Withholding Taxes and whereby the FINRA Dealer irrevocably commits to forward the proceeds necessary to satisfy the Withholding Taxes directly to the Company and/or its Affiliates; or (iv) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to you in connection with the Award with a Fair Market Value (measured as of the date shares of Common Stock are issued to pursuant to Section 6) equal to the amount of such Withholding Taxes; *provided*, *however*, that the number of such shares of Common Stock so withheld will not exceed the amount necessary to satisfy the Company's required tax withholding obligations using the minimum statutory withholding rates for federal, state, local and foreign tax purposes, including payroll taxes, that are applicable to supplemental taxable income; and *provided*, further, that to the extent necessary to qualify for an exemption from application of Section 16(b) of the Exchange Act, if applicable, such share withholding procedure will be subject to the express prior approval of the Company's Compensation Committee.

(b) Unless the tax withholding obligations of the Company and/or any Affiliate are satisfied, the Company shall have no obligation to deliver to you any Common Stock.

(c) In the event the Company's obligation to withhold arises prior to the delivery to you of Common Stock or it is determined after the delivery of Common Stock to you that the amount of the Company's withholding obligation was greater than the amount withheld by the Company, you agree to indemnify and hold the Company harmless from any failure by the Company to withhold the proper amount.

12. TAX CONSEQUENCES. The Company has no duty or obligation to minimize the tax consequences to you of this Award and shall not be liable to you for any adverse tax consequences to you arising in connection with this Award. You are hereby advised to consult

with your own personal tax, financial and/or legal advisors regarding the tax consequences of this Award and by signing the Grant Notice, you have agreed that you have done so or knowingly and voluntarily declined to do so. You understand that you (and not the Company) shall be responsible for your own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement.

13. UNSECURED OBLIGATION. Your Award is unfunded, and as a holder of a vested Award, you shall be considered an unsecured creditor of the Company with respect to the Company's obligation, if any, to issue shares or other property pursuant to this Agreement. You shall not have voting or any other rights as a stockholder of the Company with respect to the shares to be issued pursuant to this Agreement until such shares are issued to you pursuant to Section 6 of this Agreement. Upon such issuance, you will obtain full voting and other rights as a stockholder of the Company. Nothing contained in this Agreement, and no action taken pursuant to its provisions, shall create or be construed to create a trust of any kind or a fiduciary relationship between you and the Company or any other person.

14. NOTICES. Any notice or request required or permitted hereunder shall be given in writing to each of the other parties hereto and shall be deemed effectively given on the earlier of (i) the date of personal delivery, including delivery by express courier, or delivery via electronic means, or (ii) the date that is five (5) days after deposit in the United States Post Office (whether or not actually received by the addressee), by registered or certified mail with postage and fees prepaid, addressed at the following addresses, or at such other address(es) as a party may designate by ten (10) days' advance written notice to each of the other parties hereto:

COMPANY: KemPharm, Inc.
Attn: Stock Administrator
2656 Crosspark Road, Suite 100
Coralville, IA 52241

PARTICIPANT: Your address as on file with the Company
at the time notice is given

15. HEADINGS. The headings of the Sections in this Agreement are inserted for convenience only and shall not be deemed to constitute a part of this Agreement or to affect the meaning of this Agreement.

16. MISCELLANEOUS.

(a) The rights and obligations of the Company under your Award shall be transferable by the Company to any one or more persons or entities, and all covenants and agreements hereunder shall inure to the benefit of, and be enforceable by, the Company's successors and assigns.

(b) You agree upon request to execute any further documents or instruments necessary or desirable in the sole determination of the Company to carry out the purposes or intent of your Award.

(c) You acknowledge and agree that you have reviewed your Award in its entirety, have had an opportunity to obtain the advice of counsel prior to executing and accepting your Award and fully understand all provisions of your Award.

(d) This Agreement shall be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

(e) All obligations of the Company under the Plan and this Agreement shall be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business and/or assets of the Company.

17. GOVERNING PLAN DOCUMENT. Your Award is subject to all the provisions of the Plan, the provisions of which are hereby made a part of your Award, and is further subject to all interpretations, amendments, rules and regulations which may from time to time be promulgated and adopted pursuant to the Plan. Your Award (and any compensation paid or shares issued under your Award) is subject to recoupment in accordance with The Dodd–Frank Wall Street Reform and Consumer Protection Act and any implementing regulations thereunder, any clawback policy adopted by the Company and any compensation recovery policy otherwise required by applicable law. No recovery of compensation under such a clawback policy will be an event giving rise to a right to voluntarily terminate employment upon a resignation for "good reason," or for a "constructive termination" or any similar term under any plan of or agreement with the Company.

18. EFFECT ON OTHER EMPLOYEE BENEFIT PLANS. The value of the Award subject to this Agreement shall not be included as compensation, earnings, salaries, or other similar terms used when calculating benefits under any employee benefit plan (other than the Plan) sponsored by the Company or any Affiliate except as such plan otherwise expressly provides. The Company expressly reserves its rights to amend, modify, or terminate any or all of the employee benefit plans of the Company or any Affiliate.

19. CHOICE OF LAW. The interpretation, performance and enforcement of this Agreement shall be governed by the law of the State of Delaware without regard to that state's conflicts of laws rules.

20. SEVERABILITY. If all or any part of this Agreement or the Plan is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity shall not invalidate any portion of this Agreement or the Plan not declared to be unlawful or invalid. Any Section of this Agreement (or part of such a Section) so declared to be unlawful or invalid shall, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

21. OTHER DOCUMENTS. You hereby acknowledge receipt or the right to receive a document providing the information required by Rule 428(b)(1) promulgated under the Securities Act. In addition, you acknowledge receipt of the Company's *Insider Trading and Trading Window Policy*.

22. AMENDMENT. This Agreement may not be modified, amended or terminated except by an instrument in writing, signed by you and by a duly authorized representative of the Company. Notwithstanding the foregoing, this Agreement may be amended solely by the Board by a writing which specifically states that it is amending this Agreement, so long as a copy of such amendment is delivered to you, and provided that, except as otherwise expressly provided in the Plan, no such amendment materially adversely affecting your rights hereunder may be made without your written consent. Without limiting the foregoing, the Board reserves the right to change, by written notice to you, the provisions of this Agreement in any way it may deem necessary or advisable to carry out the purpose of the Award as a result of any change in applicable laws or regulations or any future law, regulation, ruling, or judicial decision, provided that any such change shall be applicable only to rights relating to that portion of the Award which is then subject to restrictions as provided herein.

23. COMPLIANCE WITH SECTION 409A OF THE CODE. This Award is intended to comply with the "short-term deferral" rule set forth in Treasury Regulation Section 1.409A-1(b)(4). Notwithstanding the foregoing, if it is determined that the Award fails to satisfy the requirements of the short-term deferral rule and is otherwise deferred compensation subject to Section 409A, and if you are a "Specified Employee" (within the meaning set forth in Section 409A(a)(2)(B)(i) of the Code) as of the date of your "separation from service" (within the meaning of Treasury Regulation Section 1.409A-1(h) and without regard to any alternative definition thereunder), then the issuance of any shares that would otherwise be made upon the date of the separation from service or within the first six (6) months thereafter will not be made on the originally scheduled date(s) and will instead be issued in a lump sum on the date that is six (6) months and one day after the date of the separation from service, with the balance of the shares issued thereafter in accordance with the original vesting and issuance schedule set forth above, but if and only if such delay in the issuance of the shares is necessary to avoid the imposition of adverse taxation on you in respect of the shares under Section 409A of the Code. Each installment of shares that vests is intended to constitute a "separate payment" for purposes of Treasury Regulation
Section 1.409A-2(b)(2).

* * * * *

This Restricted Stock Unit Award Agreement shall be deemed to be signed by the Company and the Participant upon the signing by the Participant of the Restricted Stock Unit Grant Notice to which it is attached.

KEMPHARM, INC.

INDEMNIFICATION AGREEMENT

This **INDEMNIFICATION AGREEMENT**, dated and effective as of (this "***Agreement***"), is by and between **KEMPHARM, INC.**, a Delaware corporation (the "***Company***" (as such definition is further expanded below)), , and, if such individual is a Director serving the Company as a representative of an entity, (each an "***Indemnitee***" and collectively, the "***Indemnitees***").

RECITALS:

A. The Company desires to attract and retain the services of highly qualified individuals, such as the Indemnitee, to serve the Company and its related entities.

B. In order to induce Indemnitee to provide services to the Company, the Company wishes to provide for the indemnification of, and the advancement of expenses to, the Indemnitees to the maximum extent permitted by law.

C. The Company and Indemnitees recognize the continued difficulty in obtaining and maintaining adequate liability insurance for persons serving as directors, officers, employees, agents or fiduciaries of private and public companies, the significant increases in the cost of such insurance and the general reductions in the coverage of such insurance.

D. The Company and Indemnitees further recognize the substantial increase in corporate litigation in general, subjecting directors, officers, employees, agents and fiduciaries to expensive litigation risks at the same time as the availability and coverage of liability insurance has been severely limited.

E. In view of the considerations set forth above, the Company desires that Indemnitees shall be indemnified and advanced expenses by the Company as set forth herein.

AGREEMENT:

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants and agreements set forth in this Agreement, and for other good and valuable consideration had and received, the Company and the Indemnitees hereby agree as follows:

1. Certain Definitions.

(a) "***Change in Control***" shall mean, and shall be deemed to have occurred if, on or after the date of this Agreement, (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "***Exchange Act***")), other than a trustee or other fiduciary holding securities under an employee benefit plan of the Company acting in such capacity or a corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company, becomes the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing more than 50% of the total voting power represented by the Company's then outstanding Voting Securities (as defined below), (ii) during any period of two consecutive years, individuals who at the beginning of such period constitute the Board of Directors of the Company (the "***Board***") and any new

director whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two thirds (2/3) of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof, (iii) the stockholders of the Company approve a merger or consolidation of the Company with any other corporation other than a merger or consolidation which would result in the Voting Securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into Voting Securities of the surviving entity) at least 75% of the total voting power represented by the Voting Securities of the Company or such surviving entity outstanding immediately after such merger or consolidation, or (iv) the stockholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition by the Company of (in one transaction or a series of related transactions) all or substantially all of the Company's assets.

(b) "***Claim***" shall mean with respect to a Covered Event (as defined below): any threatened, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, or any hearing, inquiry or investigation that an Indemnitee in good faith believes might lead to the institution of any such action, suit, proceeding or alternative dispute resolution mechanism, whether civil, criminal, administrative, investigative or other.

(c) "***Covered Event***" shall mean any event or occurrence related in any way to the fact that Indemnitee is or was a director, officer, employee, agent, or fiduciary of the Company, or is or was serving at the request of the Company as a director, officer, employee, agent or fiduciary of another corporation, partnership, company, joint venture, employee benefit plan, trust or other enterprise, or by reason of any action or inaction on the part of Indemnitee while serving in any such capacity.

(d) "***Expenses***" shall mean any and all expenses (including attorneys' fees and all other costs, expenses and obligations incurred in connection with investigating, defending, being a witness in or participating in (including on appeal), or preparing to defend, to be a witness in or to participate in, any action, suit, proceeding, alternative dispute resolution mechanism, hearing, inquiry or investigation), judgments, fines, penalties and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld), actually and reasonably incurred, of any Claim and any federal, state, local or foreign taxes imposed on any Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement.

(e) "***Expense Advance***" shall mean a payment to any Indemnitee pursuant to Section 3 of Expenses in advance of the settlement of or final judgment in any action, suit, proceeding or alternative dispute resolution mechanism, hearing, inquiry or investigation which constitutes a Claim.

(f) "***Independent Legal Counsel***" shall mean an attorney or firm of attorneys, selected in accordance with the provisions of Section 2(d) hereof, who shall not have otherwise performed services for the Company or the applicable Indemnitee within the last three years (other than with respect to matters concerning the rights of the Indemnitees under this Agreement, or of other indemnitees under similar indemnity agreements).

(g) References to "***other enterprises***" shall include employee benefit plans; references to "***fines***" shall include any excise taxes assessed on an Indemnitee with respect to an employee benefit plan; and references to "serving at the request of the Company" shall include any service as a director, officer, employee, agent or fiduciary of the Company which imposes duties on, or involves services by, such director, officer, employee, agent or fiduciary with respect to an employee benefit plan, its participants or its beneficiaries; and if such Indemnitee acted in good faith and in a manner such Indemnitee reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan, Indemnitee shall be deemed to have acted in a manner "not opposed to the best interests of the Company" as referred to in this Agreement.

(h) "***Reviewing Party***" shall mean, subject to the provisions of Section 2(d), any person or body appointed by the Board in accordance with applicable law to review the Company's obligations hereunder and under applicable law, which may include a member or members of the Board, Independent Legal Counsel or any other person or body not a party to the particular Claim for which an Indemnitee is seeking indemnification.

(i) "***Section***" refers to a section of this Agreement unless otherwise indicated.

(j) "***Voting Securities***" shall mean any securities of the Company that vote generally in the election of directors.

2. Indemnification.

(a) Indemnification of Expenses. Subject to the provisions of Section 2(b) below, the Company shall indemnify each Indemnitee for Expenses to the fullest extent permitted by law if such indemnitee was or is or becomes a party to or witness or other participant in, or is threatened to be made a party to or witness or other participant in, any Claim (whether by reason of or arising in part out of a Covered Event), including all interest, assessments and other charges paid or payable in connection with or in respect of such Expenses.

(b) Review of Indemnification Obligations. Notwithstanding the foregoing, in the event any Reviewing Party shall have determined in good faith (as detailed in written opinion of counsel, in any case in which Independent Legal Counsel is the Reviewing Party), that an Indemnitee is not entitled to be indemnified hereunder under applicable law, (i) the Company shall have no further obligation under Section 2(a) to make any payments to such Indemnitee not made prior to such determination by such Reviewing Party, and (ii) the Company shall be entitled to be reimbursed by such Indemnitee (who hereby agrees to reimburse the Company) for all Expenses theretofore paid in indemnifying such Indemnitee; *provided*, *however*, that if such Indemnitee has commenced or thereafter commences legal proceedings in a court of competent jurisdiction to secure a determination that such Indemnitee is entitled to be indemnified hereunder under applicable law, any determination made by any Reviewing Party that such Indemnitee is not entitled to be indemnified hereunder under applicable law shall not be binding and such Indemnitee shall not be required to reimburse the Company for any Expenses theretofore paid in indemnifying such Indemnitee until a final judicial determination is made with respect thereto (as to which all rights of appeal therefrom have been exhausted or lapsed). An Indemnitee's obligation to reimburse the Company for any Expenses shall be unsecured and no interest shall be charged thereon.

(c) Indemnitee Rights on Unfavorable Determination; Binding Effect. If any Reviewing Party determines that an Indemnitee substantively is not entitled to be indemnified hereunder in whole or in part under applicable law, such Indemnitee shall have the right to commence litigation seeking an initial determination by the court or challenging any such determination by such Reviewing Party or any aspect thereof, including the legal or factual bases therefor, and, subject to the provisions of Section 15 the Company hereby consents to service of process and to appear in any such proceeding. Absent such litigation, any determination by any Reviewing Party shall be conclusive and binding on the Company and Indemnitee.

(d) Selection of Reviewing Party; Change in Control. If there has not been a Change in Control, any Reviewing Party shall be selected by the Board, and if there has been such a Change in Control, any Reviewing Party with respect to all matters thereafter arising concerning the rights of an Indemnitee to indemnification of Expenses under this Agreement or any other agreement or under the Company's certificate of incorporation or bylaws as now or hereafter in effect, or under any other applicable law, if desired by such Indemnitee, shall be Independent Legal Counsel selected by such Indemnitee and approved by the Company (which approval shall not be unreasonably withheld). Such counsel, among other things, shall render its written advice to the Company and such Indemnitee as to whether and to what extent such Indemnitee would be entitled to be indemnified hereunder under applicable law and the Company agrees to abide by such advice. The Company agrees to pay the reasonable fees and expenses of the Independent Legal Counsel referred to above and to indemnify fully such counsel against any and all expenses (including attorneys' fees), claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto. Notwithstanding any other provision of this Agreement, the Company shall not be required to pay Expenses of more than one Independent Legal Counsel in connection with all matters concerning a single Indemnitee, and such Independent Legal Counsel shall be the Independent Legal Counsel for any or all other Indemnitees unless (i) the employment of separate counsel by one or more Indemnitees has been previously authorized by the Company in writing, or (ii) an Indemnitee shall have provided to the Company a written statement that such Indemnitee has reasonably concluded that there may be a conflict of interest between such Indemnitee and the other Indemnitees with respect to the matters arising under this Agreement.

(e) Mandatory Payment of Expenses. Notwithstanding any other provision of this Agreement other than Section 10 hereof, to the extent that an Indemnitee has been successful on the merits or otherwise, including, without limitation, the dismissal of an action without prejudice, in defense of any Claim, such Indemnitee shall be indemnified against all Expenses incurred by such Indemnitee in connection therewith.

3. Expense Advances.

(a) The Company shall make Expense Advances to an Indemnitee upon receipt of a written undertaking by or on behalf of the Indemnitee to repay such amounts if it shall ultimately be determined (as set forth herein) that the Indemnitee is not entitled to be indemnified therefor by the Company.

(b) Form of Undertaking. Any obligation to repay any Expense Advances hereunder pursuant to a written undertaking by the Indemnitee shall be unsecured and no interest shall be charged thereon.

(c) Determination of Reasonable Expense Advances. The parties agree that for the purposes of any Expense Advance for which an Indemnitee has made written demand to the Company in accordance with this Agreement, all Expenses included in such Expense Advance that are certified in good faith by affidavit of such Indemnitee as being reasonable shall be presumed conclusively to be reasonable.

4. Procedures for Indemnification and Expense Advances.

(a) Timing of Payments. All payments of Expenses (including without limitation Expense Advances) by the Company to an Indemnitee pursuant to this Agreement shall be made to the fullest extent permitted by law as soon as practicable after written demand by such Indemnitee therefor is presented to the Company, but in no event later than forty-five (45) business days after such written demand by such Indemnitee is presented to the Company, except in the case of Expense Advances, which shall be made no later than thirty (30) business days after such written demand by such Indemnitee is presented to the Company.

(b) Notice/Cooperation by Indemnitee. Each Indemnitee shall, as a condition precedent to such Indemnitee's right to be indemnified or Indemnitee's right to receive Expense Advances under this Agreement, give the Company notice in writing as soon as practicable of any Claim made against such Indemnitee for which indemnification will or could be sought under this Agreement. Notice to the Company shall be directed to the Chief Executive Officer of the Company at the address shown on the signature page of this Agreement (or such other address as the Company shall designate in writing to Indemnitee). In addition, such Indemnitee shall give the Company such information and cooperation as it may reasonably require and as shall be within Indemnitee's power.

(c) No Presumptions; Burden of Proof. For purposes of this Agreement, the termination of any Claim by judgment, order, settlement (whether with or without court approval) or conviction, or upon a plea of *nolo contendere*, or its equivalent, shall not create a presumption that Indemnitee did not meet any particular standard of conduct or have any particular belief or that a court has determined that indemnification is not permitted by this Agreement or applicable law. In addition, neither the failure of any Reviewing Party to have made a determination as to whether an Indemnitee has met any particular standard of conduct or had any particular belief, nor an actual determination by any Reviewing Party that an Indemnitee has not met such standard of conduct or did not have such belief, prior to the commencement of legal proceedings by such Indemnitee to secure a judicial determination that such Indemnitee should be indemnified under this Agreement or applicable law, shall be a defense to such Indemnitee's claim or create a presumption that such Indemnitee has not met any particular standard of conduct or did not have any particular belief. In connection with any determination by any Reviewing Party or otherwise as to whether the Indemnitee is entitled to be indemnified hereunder the burden of proof shall be on the Company to establish that such Indemnitee is not so entitled.

(d) Notice to Insurers. If, at the time of the receipt by the Company of a notice of a Claim pursuant to Section 4(b) hereof, the Company has liability insurance in effect which may cover such Claim, the Company shall give prompt notice of the commencement of such Claim to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of such Indemnitee, all amounts payable as a result of such Claim in accordance with the terms of such policies, subject to any other claims which may be paid pursuant to such policies.

(e) Selection of Counsel. In the event the Company shall be obligated hereunder to provide indemnification for or make any Expense Advances with respect to the Expenses of any Claim, the Company, if appropriate, shall be entitled to assume the defense of such Claim with counsel approved by Indemnitee (which approval shall not be unreasonably withheld) upon the delivery to such Indemnitee of written notice of the Company's election to do so. After delivery of such notice, approval of such counsel by such Indemnitee and the retention of such counsel by the Company, the Company will not be liable to such Indemnitee under this Agreement for any fees or expenses of separate counsel subsequently retained by or on behalf of such Indemnitee with respect to the same Claim; *provided*, *however*, that, (i) such Indemnitee shall have the right to employ such Indemnitee's separate counsel in any such Claim at such Indemnitee's expense, and (ii) if (A) the employment of separate counsel by such Indemnitee has been previously authorized by the Company, (B) such Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and such Indemnitee in the conduct of any such defense and such Indemnitee has received written advice of counsel to such effect, or (C) the Company shall not continue to retain such counsel to defend such Claim, then the fees and expenses of Indemnitee's separate counsel shall be Expenses for which Indemnitee may receive indemnification or Expense Advances hereunder.

5. Additional Indemnification Rights; Non-Exclusivity.

(a) Scope. The Company hereby agrees to indemnify each Indemnitee to the fullest extent permitted by law, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, the Company's certificate of incorporation, the Company's bylaws or by statute. In the event of any change after the date of this Agreement in any applicable law, statute or rule which expands the right of a Delaware corporation to indemnify a member of its board of directors or an officer, employee, agent or fiduciary, it is the intent of the parties hereto that each Indemnitee shall enjoy by this Agreement the greater benefits afforded by such change. In the event of any change in any applicable law, statute or rule which narrows the right of a Delaware corporation to indemnify a member of its board of directors or an officer, employee, agent or fiduciary, such change, to the extent not otherwise required by such law, statute or rule to be applied to this Agreement, shall have no effect on this Agreement or the parties' rights and obligations hereunder except as set forth in Section10(a) hereof.

(b) Non-Exclusivity. The indemnification and the payment of Expense Advances provided by this Agreement shall be in addition to any rights to which each Indemnitee may be entitled under the Company's certificate of incorporation, its bylaws, any other agreement, any vote of stockholders or disinterested directors, the General Corporation Law of the State of Delaware, or otherwise. The indemnification and the payment of Expense Advances provided under this Agreement shall continue as to each Indemnitee for any action taken or not taken while serving in an indemnified capacity even though subsequent thereto Indemnitee may have ceased to serve in such capacity.

(c) [Primacy of Indemnification. The Company hereby acknowledges that Indemnitee has certain rights to indemnification, advancement of expenses and/or insurance provided by [Name of Fund/Sponsor] and certain of [its][their] affiliates (collectively, the "***Fund Indemnitors***"). The Company hereby agrees (i) that it is the indemnitor of first resort (*i.e.*, its obligations to Indemnitee are primary and any obligation of the Fund Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by Indemnitee are secondary), (ii) that it shall be required to advance the full amount of expenses incurred by Indemnitee and shall be liable for the full amount of all Expenses, judgments, penalties, fines and amounts paid in settlement to the extent legally permitted and as required by the terms of this Agreement and the Company's certificate of incorporation or the Company's bylaws (or any other agreement between the Company and Indemnitee), without regard to any rights Indemnitee may have against the Fund Indemnitors, and (iii) that it irrevocably waives, relinquishes and releases the Fund Indemnitors from any and all claims against the Fund Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Fund Indemnitors on behalf of Indemnitee with respect to any claim for which Indemnitee has sought indemnification from the Company shall affect the foregoing and the Fund Indemnitors shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of Indemnitee against the Company. The Company and Indemnitee agree that the Fund Indemnitors are express third party beneficiaries of the terms of this Section 5(c).]

6. No Duplication of Payments. The Company shall not be liable under this Agreement to make any payment in connection with any Claim made against an Indemnitee to the extent such Indemnitee has otherwise actually received payment (under any insurance policy, provision of the Company's certificate of incorporation, bylaws or otherwise) of the amounts otherwise payable hereunder.

7. Partial Indemnification. If an Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of Expenses incurred in connection with any Claim, but not, however, for all of the total amount thereof, the Company shall nevertheless indemnify such Indemnitee for the portion of such Expenses to which such Indemnitee is entitled.

8. Mutual Acknowledgment. The Company and each Indemnitee acknowledge that in certain instances, federal law or applicable public policy may prohibit the Company from indemnifying its directors, officers, employees, agents or fiduciaries under this Agreement or otherwise. Each Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the Securities and Exchange Commission to submit the question of indemnification to a court in certain circumstances for a determmat1on of the Company's right under public policy to indemnify Indemnitee.

9. Liability Insurance. To the extent the Company maintains liability insurance applicable to directors, officers, employees, agents or fiduciaries, each Indemnitee shall be covered by such policies in such a manner as to provide such Indemnitee the same rights and benefits as are provided to the most favorably insured of the Company's directors, if Indemnitee is a director; or of the Company's officers, if Indemnitee is not a director of the Company but is an officer; or one of the Company's key employees, agents or other fiduciaries, if Indemnitee is not an officer or director but is a key employee, agent or other fiduciary.

10. Exceptions. Notwithstanding any other provision of this Agreement, the Company shall not be obligated pursuant to the terms of this Agreement:

(a) Excluded Action or Omissions. To indemnify an Indemnitee for Expenses resulting from acts, omissions or transactions for which such Indemnitee is prohibited from receiving indemnification under this Agreement or applicable law, *provided, however*, that notwithstanding any limitation set forth in this Section 10(a) regarding the Company's obligation to provide indemnification, such Indemnitee shall be entitled under Section 3 to receive Expense Advances hereunder with respect to any such Claim unless and until a court having jurisdiction over the Claim shall have made a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that such Indemnitee has engaged in acts, omissions or transactions for which such Indemnitee is prohibited from receiving indemnification under this Agreement or applicable law (any such final determination, an "***Adverse Final Determination***"), and *provided, further*, that the Company shall have no obligation to provide any Expense Advances unless and until such Indemnitee has furnished the Company with an undertaking to repay Expense Advances in the event of an Adverse Final Determination.

(b) Claims Initiated by Indemnitee. To indemnify or make Expense Advances to the Indemnitee with respect to Claims initiated or brought voluntarily by an Indemnitee and not by way of defense, counterclaim or crossclaim, except: (i) with respect to actions or proceedings brought to establish or enforce a right to indemnification under this Agreement or any other agreement or insurance policy or under the Company's certificate of incorporation or bylaws now or hereafter in effect relating to Claims for Covered Events, (ii) in specific cases if the Board has approved the initiation or bringing of such Claim, or (iii) as otherwise required under Section 145 of the Delaware General Corporation Law, regardless of whether Indemnitee ultimately is determined to be entitled to such indemnification, or insurance recovery, as the case may be.

(c) Lack of Good Faith. To indemnify an Indemnitee for any Expenses incurred by such Indemnitee with respect to any action instituted: (i) by such Indemnitee to enforce or interpret this Agreement, if a court having jurisdiction over such action determines as provided in Section 13 that each of the material assertions made by such Indemnitee as a basis for such action was not made in good faith or was frivolous, or (ii) by or in the name of the Company to enforce or interpret this Agreement, if a court having jurisdiction over such action determines as provided in Section 13 that each of the material defenses asserted by such Indemnitee in such action was made in bad faith or was frivolous.

Furthermore, notwithstanding anything herein to the contrary, Indemnitee shall be entitled under Section 3 (to the maximum extent permitted by law) to receive Expense Advances hereunder with respect

to any Claim arising from the purchase and sale of securities of the Company by the Indemnitee in violation of Section 16(b) of the Exchange Act unless and until a court having jurisdiction over the Claim shall have made a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that Indemnitee has violated said statute or the Claim is settled and in connection with such settlement Indemnitee admits a violation of said statute, in which event Indemnitee will be obligated to repay all Expense Advances to the Company pursuant to a payment plan or other payment arrangements mutually agreeable to the parties.

11. Counterparts. This Agreement may be executed and delivered in multiple counterparts (including facsimile, PDF, or other electronic counterparts), each of which, when taken together, shall constitute one and the same instrument.

12. Binding Effect; Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective successors, assigns (including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business or assets of the Company), spouses, heirs and personal and legal representatives. The Company shall require and cause any successor (whether direct or indirect, and whether by purchase, merger, consolidation or otherwise) to all, substantially all, or a substantial part, of the business or assets of the Company, by written agreement in form and substance satisfactory to the Indemnitees, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place. This Agreement shall continue in effect regardless of whether Indemnitee continues to serve as a director, officer, employee, agent or fiduciary (as applicable) of the Company or of any other enterprise at the Company's request.

13. Expenses Incurred in Action Relating to Enforcement or Interpretation. In the event that any action is instituted by any Indemnitee under this Agreement or under any liability insurance policies maintained by the Company to enforce or interpret any of the terms hereof or thereof, such Indemnitee shall be entitled to be indemnified for all Expenses incurred by such Indemnitee with respect to such action (including without limitation attorneys' fees), regardless of whether Indemnitee is ultimately successful in such action, unless as a part of such action a court having jurisdiction over such action makes a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that each of the material assertions made by such Indemnitee as a basis for such action was not made in good faith or was frivolous; *provided*, *however*, that until such final judicial determination is made, Indemnitee shall be entitled under Section 3 to receive payment of Expense Advances hereunder with respect to such action. In the event of an action instituted by or in the name of the Company under this Agreement to enforce or interpret any of the terms of this Agreement, each Indemnitee shall be entitled to be indemnified for all Expenses incurred by such Indemnitee in defense of such action (including without limitation costs and expenses incurred with respect to such Indemnitee's counterclaims and cross-claims made in such action), unless as a part of such action a court having jurisdiction over such action makes a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that each of the material defenses asserted by such Indemnitee in such action was made in bad faith or was frivolous; *provided*, *however*, that until such final judicial determination is made, such Indemnitee shall be entitled under Section 3 to receive payment of Expense Advances hereunder with respect to such action.

14. Notice. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed duly given (i) if delivered by hand and signed for by the party addressed, on the date of such delivery, or (ii) if mailed by domestic certified or registered mail with postage prepaid, on the third business day after the date postmarked. Addresses for notice to either party are as shown on the signature page of this Agreement, or as subsequently modified by written notice.

15. Consent to Jurisdiction. The Company and each Indemnitee each hereby irrevocably consent to the jurisdiction of the courts of the State of Delaware for all purposes in connection with any action or proceeding which arises out of or relates to this Agreement and agree that any action instituted under this Agreement shall be commenced, prosecuted and continued only in the Court of Chancery of the State of Delaware in and for New Castle County, which shall be the exclusive and only proper forum for adjudicating such a claim.

16. Severability. The provisions of this Agreement shall be severable in the event that any of the provisions hereof (including any provision within a single section, paragraph or sentence) are held by a court of competent jurisdiction to be invalid, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law. Furthermore, to the fullest extent possible, the provisions of this Agreement (including without limitation each portion of this Agreement containing any provision held to be invalid, void or otherwise unenforceable, that is not itself invalid, void or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

17. Choice of Law. This Agreement, and all rights, remedies, liabilities, powers and duties of the parties to this Agreement, shall be governed by and construed in accordance with the laws of the State of Delaware without regard to its principles of conflicts of laws.

18. Subrogation. In the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of each Indemnitee, who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Company effectively to bring suit to enforce such rights.

19. Amendment and Termination. No amendment, modification, termination or cancellation of this Agreement shall be effective unless it is in writing signed by both the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed to be or shall constitute a waiver of any other provisions hereof (whether or not similar), nor shall such waiver constitute a continuing waiver.

20. Integration and Entire Agreement. This Agreement sets forth the entire understanding between the parties hereto and supersedes and merges all previous written and oral negotiations, commitments, understandings and agreements relating to the subject matter hereof between the parties hereto.

21. No Construction as Employment Agreement. Nothing contained in this Agreement shall be construed as giving Indemnitee any right to be retained in the employ of the Company or any of its subsidiaries or affiliated entities.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have executed this **INDEMNIFICATION AGREEMENT** as of the date first written above.

KEMPHARM, INC.

By: _____
Travis C. Mickle
Chief Executive Officer

INDEMNITEE:

_____

[NAME OF FUND, IF APPLICABLE]

By: _____
Name:
Title:

EXHIBIT 10.18

KEMPHARM, INC.

EMPLOYMENT AGREEMENT
GORDON K. JOHNSON
DATED JULY 10, 2013

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KEMPHARM, INC.
EMPLOYMENT AGREEMENT

This EMPLOYMENT AGREEMENT ("Agreement") is made and entered into effective as of the 10th day of July 2013, by and between KEMPHARM, INC., an Iowa corporation (the "Company") and GORDON K. JOHNSON ("Executive") (each being a "Party" hereto and together constituting the "Parties").

WHEREAS, Executive desires to be employed by Company as its Chief Operating Officer ("COO") and Chief Financial Officer ("CFO") and Company desires to employ Executive in such capacity under the terms and conditions set forth below.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, and for other good and valuable consideration, the receipt, adequacy and sufficiency of which is hereby acknowledged, the Parties hereto agree as follows:

1. Employment.

A. Employment. Company hereby employs Executive and Executive hereby accepts such employment with Company as COO and CFO, or in such other capacities as Company shall reasonably determine from time to time, upon the terms and conditions set forth in this Agreement.

B. Effective Date and Term. Company's employment of Executive shall commence effective as of July 10, 2013 (the "Effective Date"), and continue until the Date of Termination (defined in Section 5(E)) (hereinafter such period of time from the commencement until termination of the employment shall be referred to as the "Term").

C. Duties of Executive. During the Term, all of the following shall apply: Executive shall carry out, perform and comply with such orders, directions, rules and policies as are assigned or set by Company's president or board of directors (the "Board of Directors") from time to time. Executive shall report to, receive directions from and be reviewed by Company's president and Board of Directors. Executive's duties shall include the duties and responsibilities commonly associated with a chief financial officer and chief operating officer, including, without limitation, the responsibilities set forth in the attached Exhibit A. The Parties acknowledge and agree that the objectives set forth in the attached Exhibit B constitute critical initial performance objectives which are to be pursued in the short term and implemented by Executive in the performance of his employment duties. Subject to the limitations of Section 2(D)(3)(iv), Company's president and Board of Directors retain the right to modify Executive's job title and responsibilities pursuant to the legitimate business needs of Company. The Board of Directors may, but is not required to, nominate (from time to time) Executive for election by the shareholders to a seat on the Board of Directors.

D. Duty of Loyalty. Except as set forth on Exhibit C, during the Term, Executive shall not, without the prior written consent of the Board of Directors, accept other employment or render or perform other services for compensation. Executive shall devote his full business time and attention and his best efforts to the faithful performance of his duties as an executive officer and employee of Company. Executive's expenditure of reasonable amounts of time for teaching, personal business, or on behalf of charitable or professional organizations shall not be deemed a breach of this Agreement, provided such activities do not materially interfere with the performance of Executive's duties and responsibilities hereunder.

E. Place of Performance. Executive shall be permitted to perform his employment duties on behalf of Company primarily at Executive's home office; provided, however, that Executive shall

commute to Company's main office (presently in North Liberty, Iowa) as business needs require and as reasonably requested by the Board of Directors; further provided that so long as Executive resides outside of the state in which Company's main office is located, Executive's commute to Company's main office shall be treated as work related travel and will be reimbursed in accordance with the terms of Section 3 hereof. Notwithstanding the foregoing, the Parties acknowledge that Executive's employment duties may require him to travel extensively.

2. COMPENSATION AND BENEFITS. In consideration of the services to be rendered by Executive pursuant to this Agreement, as well as Executive's covenants set forth in this Agreement, Company shall pay to Executive the following compensation, which shall be the entire and exclusive compensation for all of his services rendered and other obligations taken on Company's behalf:

A. Base Annual Salary. Subject to the following subsections A(1) – (2), during the Term, Company shall pay to Executive an annualized base salary of $275,000 (the "Base Salary"). For calendar years in which Executive is employed for less than the full year, the Base Salary shall be prorated and accrue on a per diem basis for only those days on which Executive was employed. The Base Salary will be paid by Company in equal installments according to Company's customary payroll practices, but in any event not less frequently than monthly, and shall be subject to all mandatory and voluntary payroll deductions. The Base Salary may be increased (but never decreased) from time to time in the sole discretion of Company's Board of Directors or the Compensation Committee of the Board of Directors (the "Compensation Committee") if so designated; provided however, that the Base Salary shall be increased automatically upon the occurrence of a Minimum Debt Raise (as defined below) and IPO (as defined below), as described below in subsections (A)(1) and (A)(2).

(1) If a Minimum Debt Raise occurs, the Base Salary shall be increased automatically to $325,000, effective on the same day as the date of the Minimum Debt Raise (the "Minimum Debt Raise Date"). For purposes of this Agreement, (a) "Minimum Debt Raise" means that Company first has sold at least $5,000,000 in Units (as defined below) on a cumulative basis, including Units sold prior to Effective Date, under Company's Debt Private Placement Offering and (b) "Debt Private Placement Offering" means Company's private placement offering of units of convertible promissory note obligations and warrants to purchase Company stock (the "Units"), which offering is ongoing as of the Effective Date and which is intended to be exempt from registration under the Securities Act of 1933, as amended (the "1933 Act") pursuant to the exemption provided by Section 4(2) of the 1933 Act and Regulation D promulgated thereunder.

(2) If an IPO occurs, the Base Salary shall be increased to $400,000, effective on the same day as the date of the IPO. For purposes of this Agreement, "IPO" means the first sale of equity securities issued by Company, which sale is registered under the 1933 Act, and which securities are listed on a National Securities Exchange. For purposes of this Agreement, a "National Securities Exchange" means a securities exchange described in Section 18(b)(1) of the Securities Act.

B. Cash Bonuses. Upon the terms and conditions set forth in the following subsections, Company shall pay to Executive the following amounts in cash, which the Parties intend to constitute bonus awards, upon the occurrence of the following events during the Term (except as otherwise provided in subsection (D)(2) below):

(1) Upon the initial occurrence of a Minimum Debt Raise, Company shall pay Executive a bonus equal to (a) $137, multiplied by (b) the number of days from the Effective Date through the Minimum Debt Raise Date (the "Minimum Debt Raise Bonus"). The Minimum Debt Raise Bonus shall be paid in the form of a lump sum cash payment within fifteen (15) days following the Minimum Debt Raise Date.

(2) Upon the occurrence of a Fundraising Transaction (as defined below) during the Term, Company shall pay to Executive a cash bonus equal to 1.5% of the gross proceeds raised from such sale ("Fundraising Transaction Cash Bonus"). Such Fundraising Transaction Cash Bonus shall be paid within fifteen (15) days following the closing of such Fundraising Transaction; provided, however, that no such Fundraising Transaction Cash Bonus shall be paid based upon the first $3,000,000 in sales of Units under the Debt Private Placement Offering. For purposes of this Agreement, a "Fundraising Transaction" means the sale of Company securities in an IPO, any SEC-registered offering, registered direct, PIPE or a private placement offering exempt from registration under the 1933 Act pursuant to an exemption provided by Section 4(2) of the 1933 Act and Regulation D promulgated thereunder.

(3) Upon the occurrence of a Sale (as defined below) during the Term, Company will pay Executive a cash bonus equal to 1.5% of the gross sale proceeds ("Sale Cash Bonus"); provided, however, that if the Sale occurs subsequent to a Strategic Partnership Event and the acquiring party in the Sale is the other party to such Strategic Partnership Event or an entity controlled by, in control of or under common control with such other party, then the Sale Cash Bonus shall be equal to 0.5% of the gross sale proceeds. The Sale Cash Bonus will not exceed a total of $3,000,000 million in the aggregate. Such Sale Cash Bonus shall be paid within five (5) days following the closing of such Sale. For purposes of this Agreement, "Sale" means the sale of more than fifty percent (50%) of the equity of Company, a merger of Company with an entity the equity of which after the merger the stockholders of Company immediately prior to such merger own less than fifty percent (50%), or the sale of substantially all of the assets of Company, in any case to a person or entity not affiliated with Company. A recapitalization, Fundraising Transaction or change of form of Company shall not be considered a Sale.

(4) Upon the occurrence of each Strategic Partnership Event (as defined below), Company shall pay to Executive a cash bonus for each pre-Commercialization (as defined below) cash payment received by Company with respect to each Strategic Partnership Event, including but not limited to, all initial payments, upfront payments, milestone payments, progress payments, R&D funding, equity investments, other partnership payments, and license fees that become due based upon events occurring prior to the Commercialization of the drug candidate(s) which are the subject of the Strategic Partnership Event (a "Strategic Partnership Payment") and which bonus shall be equal to 1.5% of each Strategic Partnership Payment ("Strategic Partnership Cash Bonus"). Strategic Partnership Cash Bonuses for each Strategic Partnership Event will not exceed a total of $3,000,000 in the aggregate. For purposes of this Agreement, "Commercialization" means the sales and marketing phase with regard to a specific drug candidate in a specific country or region following the regulatory approval of said drug candidate in the applicable country or region and "Strategic Partnership Event" means any written agreement resulting in a license, transfer, sale, assignment, joint venture, co-promotion, conveyance or similar arrangement between Company and a third party in connection with the development and/or Commercialization of one or more of KemPharm's drug candidates or other technologies. Notwithstanding the foregoing, the Parties agree that (a) "Strategic Partnership Events" shall exclude those strategic partnerships which primarily comprise an arrangement for the formulation and manufacturing of the active pharmaceutical ingredient or commercialized drug form of KemPharm's drug candidates or other technologies and other vendor relationships, and (b) "Strategic Partnership Payments" shall exclude (i) any royalty payments or sales-based milestone payments received by Company or other payments made in substitution thereof that are not pre-Commercialization payments, and (ii) any payments made in reimbursement of

miscellaneous expenses incurred by Company pursuant to the Strategic Partnership Event that are separate from and not included in the pre-identified, itemized Strategic Partnership Payments as stipulated in the agreement (including all amendments thereto) memorializing the Strategic Partnership Event. Company shall pay each Strategic Partnership Cash Bonus to Executive within five (5) days following Company's receipt of its corresponding Strategic Partnership Payment.

(5) In addition to the bonus awards payable pursuant to subsections B(1), B(2), B)(3) and (B)(4), Company's Board of Directors, or the Compensation Committee if so designated, may award from time to time additional merit-based cash bonuses to Executive as determined by the Board of Directors or the Compensation Committee, as applicable, in its sole discretion.

C. Equity Compensation. Upon the terms and conditions set forth in the following subsections, Company shall grant to Executive (x) options to purchase shares of Company's common stock ("Common Stock") or (y) shares of Common Stock, pursuant to and in accordance with the terms and conditions of Company's Incentive Stock Plan, or a successor plan (the "Stock Plan") and Company's form of option or stock grant agreement, as applicable, upon the occurrence of the following events during the Term (except as otherwise provided in subsection (D)(2) below):

(1) Company shall grant Executive a stock option to purchase 600,000 shares of Common Stock (the "Sign-On Option"), which will vest and become exercisable subject to the following schedule: (a) 150,000 shares of Common Stock subject to the Sign-On Options shall be fully vested and exercisable as of the date of grant, and (b) 150,000 shares of Common Stock subject to the Sign-On Option shall vest on each of the first three anniversaries of the Effective Date such that the Sign-On Option is fully vested and exercisable on the third anniversary of the Effective Date.

(2) Upon the closing of each Fundraising Transaction, Company shall grant to Executive a stock option to purchase a number of shares of Common Stock equal to 1.0% of the gross proceeds received by Company in the Fundraising Transaction. Such options shall be vested and fully exercisable as of the respective dates of grant. Notwithstanding the foregoing, no options to purchase Common Stock shall be issued to Executive pursuant to this subsection (C)(2) for (i) the first $3,000,000 in sales of Units under the Debt Private Placement Offering, or (ii) with respect to any Fundraising Transaction that occurs after Company has received cumulative proceeds of $53,000,000 from all Fundraising Transactions. By way of example only, if the gross proceeds received by Company in a Fundraising Transaction (not including the current Debt Private Placement Offering) are $20,000,000, then Executive will be granted an option to purchase 200,000 shares of Common Stock.

(3) Upon the occurrence of an IPO or a Sale: (a) in the case of an IPO, the Company shall issue to Executive a stock option to purchase up to 300,000 shares of Common Stock which shall be fully vested and exercisable as of the issuance date; and (b) in the case of a Sale, the Company shall grant Executive 300,000 shares of Common Stock, which shares shall be fully vested as of the issuance date; provided, however, that if the Sale occurs subsequent to a Strategic Partnership Event and the acquiring party in the Sale is the other party to such Strategic Partnership Event or an entity controlled by, in control of or under common control with such other party, then the Company shall grant Executive 100,000 shares of Common Stock, which shares shall be fully vested as of the issuance date.

(4) Upon Company's receipt of each Strategic Partnership Payment, Company shall grant to Executive a stock option to purchase a number of shares of Common Stock equal to 0.5% of the Strategic Partnership Payment. Such options shall be vested and fully exercisable as of the

respective dates of grant. Notwithstanding the foregoing, after Company has received $100,000,000 cumulatively from Strategic Partnership Payments, Executive shall not be issued any additional options pursuant to this subsection (C)(4). By way of example only, if the Strategic Partnership Payment is $50,000,000, then Executive will be granted an option to purchase 250,000 shares of Common Stock.

(5) In addition to the stock option and Common Stock grants pursuant to subsections (C)(1)-(C)(4), Company's Board of Directors, or the Compensation Committee if so designated, may award from time to time additional equity awards to Executive as determined by the Board of Directors or the Compensation Committee, as applicable, in its sole discretion.

(6) The exercise price for any option granted pursuant to each of the above subsections (C)(1) - (C)(5) shall be equal to the fair market value of the Common Stock as of the date of issuance as determined in accordance with the Stock Plan.

(7) With respect to each option granted pursuant to the above subsections (C)(1) -(C)(5), (a) the Board of Directors in its discretion shall determine the classification of such option as between incentive stock options and nonqualified stock options, (b) such grant of option shall be memorialized in a written agreement acceptable to Company in its discretion which shall contain customary terms and conditions generally included in Company's stock option agreements with its employees, (c) shall be issued pursuant to and in accordance with Company's Stock Plan and (d) shall become fully vested and exercisable upon a Sale. With respect to the Common Stock granted pursuant to the above subsections (C)(3) and (C)(5), (x) such grant of Common Stock shall be memorialized in a written agreement acceptable to Company in its discretion which shall contain customary terms and conditions generally included in Company's Common Stock agreements with its employees, and (y) shall be issued pursuant to and in accordance with Company's Stock Plan.

D. Severance Compensation.

(1) In the event that Company terminates Executive's employment without Cause or Executive terminates his employment for Good Reason, then Company shall pay to Executive as severance compensation the Base Salary (at the rate payable at the time of such termination) for a period of twelve (12) months following the date of termination. Such severance compensation shall be paid by Company in equal installments according to Company's customary payroll practices, with the first payment made on the first pay day immediately following the effective date of termination, but in any event payments shall be made not less frequently than monthly; provided, however, that (a) Company shall pay such severance in a lump sum on the first pay day immediately following the effective date of termination if such termination of employment occurs upon or within one (1) year following a Sale, and the Sale constitutes a "change in control event" as defined under Section 409A of the Code, to the extent required to comply with Section 409A of the Code; and (b) notwithstanding the preceding clause (a), if the Sale is not a "change in control event" as defined under Section 409A of the Code and penalty taxes may result under Section 409A if such severance compensation is paid in a lump sum, then the severance compensation will be paid in equal installments according to Company's customary payroll practices, with the first payment made on the first pay day immediately following the effective date of termination, but in any event payments shall be made not less frequently than monthly. Payment of the severance compensation shall be subject to all mandatory and voluntary payroll deductions. In the event that Executive materially breaches any of his post-employment covenants or obligations set forth in this Agreement and fails to cure such breach within fifteen (15) calendar days following receipt from Company of notice to cure such breach, then the payment of severance compensation pursuant to this section shall terminate immediately and

permanently. During the period that Executive is paid the foregoing severance compensation, Executive shall not further accrue any other benefits under any benefit plans of which Executive was a participant while employed by Company, except as otherwise required by applicable federal or state law, by the express terms of this Agreement, or by the express terms of such benefit plans.

(2) In the event that Company terminates Executive's employment without Cause or Executive terminates his employment for Good Reason and a Minimum Debt Raise, Sale, or a Fundraising Transaction occurs, or a Strategic Partnership Payment is made, in each case, within sixty (60) days following Executive's effective date of termination, Company shall (i) pay Executive the Minimum Debt Raise Bonus, Fundraising Transaction Cash Bonus, Sale Cash Bonus, and Strategic Partnership Cash Bonuses, as applicable, which shall be paid within timeframe following the applicable event, as set forth in Section 2(B) and (2) grant the stock options to be granted pursuant to the above subsections (C)(2) - (4) and the Common Stock to be granted pursuant to the above subsection (C)(3) upon the occurrence of the applicable event, as set forth in Section 2(C); provided, however, any payments or grants made to Executive pursuant to this subsection (D)(2) must be made no later than March 15 following the year in which Executive's termination of employment occurs. Notwithstanding the foregoing, in the event that Executive materially breaches any of his post-employment covenants or obligations set forth in this Agreement and fails to cure such breach within fifteen (15) calendar days following receipt from Company of notice to cure such breach, then the payment of cash bonuses, stock options and Common Stock pursuant to this subsection (D)(2) shall terminate immediately and permanently.

(3) For purposes of this Agreement:

(i) Executive's employment will be deemed to have been terminated by Company "with Cause" if the termination arises from or relates to a determination by the Board of Directors that (a) Executive performed an act or acts of willful and material malfeasance or misconduct with respect to the performance of Executive's duties and responsibilities as an employee and executive officer of Company or under this Agreement that results in material harm to Company that remains uncorrected for fifteen (15) days after receipt of written notice by Company to Executive; or (b) except as otherwise provided in Section 1(D), Executive's continued failure to devote his full business time and attention and his best efforts to the faithful performance of his material duties and responsibilities (other than a failure resulting from Executive becoming disabled) that remains uncorrected for fifteen (15) days after receipt of written notice by Company to Executive; or (c) Executive's material breach of any material provision of this Agreement that remains uncorrected for fifteen (15) days after receipt of written notice by Company to Executive; or (d) Executive commits an act of fraud, embezzlement, misappropriation, or personal dishonesty against Company (which, if proven, would constitute a felony); or (e) the conviction, or plea of *nolo contendere*, of Executive to a crime constituting a felony.

(ii) Executive's employment shall be deemed to have been terminated by Company "without Cause" if such termination does not arise from or relate to any of acts or omissions constituting "Cause" as set forth in clauses (a) through (e) of the immediately preceding subsection, and such termination is not the result of Executive's death or Executive suffering a Total Disability.

(iii) Executive shall be deemed to have suffered a "Total Disability" if (a) Executive is granted long-term disability benefits or (b) Executive becomes physically or mentally disabled so that Executive is unable to perform the essential functions of Executive's job,

with or without reasonable accommodation in accordance with the Americans with Disabilities Act and its amendments, for a period of one hundred eighty (180) consecutive days.

(iv) Executive shall be deemed to have terminated his employment for "Good Reason" if Executive terminates his employment on account of the occurrence of one or more of the following without Executive's consent:

(a) A material diminution by Company of Executive's authority, duties or responsibilities the duration of which is greater than fifteen (15) days and which is not the result of Executive's acts or omissions which constitute "Cause" as set forth in clauses (a) through (e) of subsection 2(D)(3)(i);

(b) A material change in the geographic location at which Executive must perform services under this Agreement (which, for purposes of this Agreement, means the requirement that Executive work from at a location more than fifty (50) miles from the location at which Executive performs services immediately prior to the relocation);

(c) A material diminution in the Executive's Base Salary which is not the result of Executive's acts or omissions which constitute "Cause" as set forth in clauses (a) through (e) of subsection 2(D)(3)(i); or

(d) Any action or inaction that constitutes a material breach by Company of this Agreement, including the failure of Company to pay any amounts due under Section 2 or the failure of Company to obtain from its successors the express assumption and agreement required under Section 18(A).

Executive must provide Notice of Termination (as defined in Section 5(E)) for Good Reason to Company within sixty (60) days after the event constituting Good Reason. Company shall have a period of thirty (30) days in which it may correct the act or failure to act that constitutes the grounds for Good Reason as set forth in Executive's Notice of Termination. If Company does not correct the act or failure to act, then, in order for the termination to be considered a Good Reason termination, Executive must terminate his or her employment for Good Reason by giving Notice of Termination with a Date of Termination designated by Executive which is at least thirty (30) days after the date on which the Notice of Termination is given but not more than ninety (90) days after the end of the cure period.

(4) In the event Company terminates Executive's employment with Cause, Executive voluntarily terminates his employment with Company other than for Good Reason, or such employment is terminated by mutual agreement or as the result of Executive's death or Total Disability, Executive shall not be entitled to payment of any severance compensation under this Agreement.

E. Employee Welfare and Pension Plans. During the Term, Executive shall also be entitled to participate in employee welfare and pension benefit plans maintained by Company from time to time for its employees to the extent that Executive's position, title, tenure, salary, age and other qualifications make Executive eligible to participate therein, including but not limited to, life, health and disability plans, and a 401(k) retirement plan and similar or other plans. Company does not guarantee the continuance of any particular employee benefit plan or program during the Term, and Executive's participation in any such plan or program shall be subject to the provisions, rules and regulations thereof.

F. Paid Time Off, Holidays. Executive shall be eligible to accrue a total of thirty-three (33) days of paid time off (PTO) during each calendar year. PTO shall accrue and carryover in accordance with Company's paid time off policy for its employees as stated in Company's employee handbook, as amended from time to time. Such PTO shall be taken by Executive at such time or times as are reasonable under the circumstances in light of Executive's duties hereunder and in accordance with Company's paid time off policy. Additionally, Executive shall be entitled to the same paid holidays as are made available to all full-time employees of Company.

G. Withholding. All compensation and benefits payable to Executive under this Agreement shall be subject to all income and other employment tax withholding and reporting required by federal, state or local law with respect to compensation, benefits and reimbursable expenses paid by a corporation to an employee.

3. REIMBURSABLE EXPENSES. Company shall reimburse Executive for all reasonable and necessary business expenses that he incurs while performing his duties under this Agreement in accordance with Company's general policies of expense reimbursement in effect from time to time.

4. COMPANY POLICIES AND PROCEDURES. Executive agrees to observe and comply with the policies and procedures of Company as adopted by the Board of Directors either orally or in writing, respecting performance of Executive's duties and to carry out and to perform orders, directions, and policies stated by Company to Executive, from time to time, either orally or in writing.

5. TERMINATION.

A. Executive's Death or Total Disability. Executive's employment under this Agreement shall terminate upon the date of Executive's death. Additionally, if, during the Term, Executive suffers a Total Disability, then Company may terminate Executive's employment under this Agreement by giving Executive a Notice of Termination specifying the Date of Termination. Upon such termination due to death or Total Disability, Company shall pay to Executive or Executive's estate any Base Salary and cash bonuses payable under Section 2(B) that have fully accrued and vested but not been paid as of the effective date of such termination, as well as any vested and accrued employment benefits subject to the terms of any applicable employment benefit arrangements and applicable law ("Accrued Benefits"). All other rights and benefits of Executive and Executive's dependents hereunder shall terminate upon such termination, except for any right to the continuation of benefits otherwise provided by law.

B. By Company with Cause. Company may terminate with Cause Executive's employment hereunder at any time. In order to terminate Executive's employment hereunder with Cause, Company must give Notice of Termination to Executive specifying the Cause and the Date of Termination, which may be the same date as the date of the Notice of Termination, subject to the notice and cure provisions set forth in Section 2(D)(3)(i). Upon termination for Cause, Company shall pay to Executive all Accrued Benefits. All other rights and benefits of Executive hereunder shall terminate upon such termination, except for any right to the continuation of benefits otherwise provided by law.

C. By Executive without Good Reason or by Mutual Agreement. Executive may terminate his employment without Good Reason at any time by giving Company Notice of Termination at least thirty (30) days prior to the Date of Termination designated by Executive. In addition, this Agreement may be terminated at any time by mutual agreement of the Parties with or without notice.

Upon termination of his employment by Executive without Good Reason or termination by mutual agreement of the parties, Company shall pay to Executive all Accrued Benefits. All other rights and benefits of Executive hereunder shall terminate upon such termination, except for any right to the continuation of benefits otherwise provided by law.

D. Without Cause by Company or For Good Reason by Executive. Company may terminate Executive's employment at any time without Cause by giving Executive a Notice of Termination at least one (1) day prior to the Date of Termination, and Executive may terminate Executive's employment for Good Reason by giving Company a Notice of Termination in accordance with Section 2(D)(3)(iv). Upon termination of Executive's employment without Cause by Company or for Good Reason by Executive, Company will pay Executive (1) all Accrued Benefits, (2) the severance compensation payable under 2(D)(1) hereof and (3) all amounts in accordance with Section 2(D)(2), to the extent applicable. All other rights and benefits of Executive hereunder shall terminate upon such termination, except for any right to the continuation of benefits otherwise provided by law.

E. Notice of Termination and Date of Termination. Each Party must give written notice to the other of the intent to terminate this Agreement ("Notice of Termination"). The Notice of Termination must specify a date of termination, which shall incorporate any period of notice required by Section 2, Section 4 or this Section 5 ("Date of Termination").

F. Cooperation after Notice of Termination. Following any Notice of Termination by either Company or Executive, Executive, if requested by Company, shall reasonably cooperate with Company in all matters relating to the winding up of Executive's pending work on behalf of Company and the orderly transfer of any such pending work to other employees of Company as may be designated by Company for no longer than the six (6) month period following the Notice of Termination, unless otherwise mutually agreed between Executive and Company in writing; provided that, if Executive is not receiving any severance compensation pursuant to Section 2(D), then, for each day that Executive performs services under this Section 5(F), Company shall pay Executive a per diem cash amount at Executive's Base Salary rate on the date of the Notice of Termination.

G. Surrender of Records and Property. Upon termination of employment, Executive shall promptly turn-over or deliver to Company at Company's expense all property of Company in Executive's possession, custody, or control, including without limitation thereto: records (paper and electronic), files (paper and electronic), documents (paper and electronic), electronic mail (e-mail) on Company accounts, letters, financial information, memorandum, notes, notebooks, contracts, project manuals, specifications, reports, data, tables, calculations, data, electronic information, and computer disks, in all cases whether or not such property constitutes Confidential Information (as defined below), and all copies thereof; all keys to motor vehicles, offices or other property of Company; and all computers, cellular phones and other property of Company. If any of the foregoing property of Company is electronically stored on a computer or other storage medium owned by Executive or a friend, family member or agent of Executive, such information shall be copied onto a computer disk to be delivered to Company together with a written statement of Executive that the information has been deleted from such person's computer or other storage medium.

6. SECTION 280G OF THE CODE.

A. Shareholder Approval, etc. At any time when Company is a corporation described in Section 280G(b)(5)(A)(ii)(I) of the Code, if a nationally recognized United States public accounting firm selected (and paid for) by Company (the "Accountant") determines that any payment or benefit (including any accelerated vesting of options or other equity awards) made or provided, or to be made or provided, by Company (or any successor thereto or affiliate thereof) to or for the benefit of Executive, whether pursuant to the terms of this Agreement, any other agreement, plan, program or

arrangement of or with Company (or any successor thereto or affiliate thereof) or otherwise in connection with, or arising out of, a change in ownership or an effective control of Company or of a substantial portion of assets (any such payment or benefit, a "Parachute Payment"), will be subject to the excise tax imposed by Section 4999 of the Code or any comparable tax imposed by any replacement or successor provision of United States tax law (the "Excise Tax"), if Executive waives his right to receive all or a portion of the Parachute Payments unless such Parachute Payments are approved by the shareholders pursuant to Treas. Reg. Section 1.280G-1, Q&A-7, Company shall in good faith seek to obtain approval of payment of such waived Parachute Payments in accordance with the shareholder approval requirements described in Treas. Reg. Section 1.280G-1, Q&A-7.

B. Better Off. If, following the date when Company ceases to be corporation described in Section 280G(b)(5)(A)(ii)(I) of the Code, it is determined by the Accountant that Executive shall become entitled to a Parachute Payment, which Parachute Payment shall be subject to the Excise Tax, then Company shall cause to be determined, before any amounts of any Parachute Payment is paid to Executive, which of the following two alternative forms of payment would result in Executive, on an after-tax basis, retaining the greater amount of Parachute Payments, notwithstanding that all or entire portion of the Parachute Payments may be subject to the Excise Tax: (a) payment in full of all Parachute Payments or (b) payment of only a part of the Parachute Payments so that Executive receives the largest payment possible without the imposition of the Excise Tax (a "Reduced Payment"). For purposes of this Section 6(B), the Accountant shall take into account all applicable federal, state and local income and employment taxes and the Excise Tax (all computed at Executive's actual marginal tax rate). If a Reduced Payment is made, (i) Executive shall have no rights to any additional payments and/or benefits constituting the Parachute Payments, and (ii) reduction in payments and/or benefits shall occur in the manner that results in the greatest economic benefit to Executive as determined in Sections 6(C) and 6(D).

C. Reduction. If Section 6(B) is applicable and the Reduced Payment is to be paid, then the Parachute Payments shall be reduced in the following order: (i) any severance payment that is based on a multiple of the Base Salary; (ii) the acceleration of vesting of stock options with an exercise price that exceeds the then fair market value of the common stock subject to the award, provided that such stock options are not permitted to be valued under Treasury Regulation Section 1.280G-1 Q/A – 24(c); (iii) any equity awards accelerated or otherwise valued at full value, provided that such equity awards are not permitted to be valued under Treasury Regulation Section 1.280G-1 Q/A – 24(c); (iv) the acceleration of vesting of stock options with an exercise price that exceeds the then fair market value of the common stock subject to the award and other equity awards, provided that such stock options and other equity awards are permitted to be valued under Treasury Regulation Section 1.280G-1 Q/A – 24(c); and (v) the acceleration of vesting of all other stock options and equity awards; provided that with each category the reduction shall be done on a basis resulting in the highest amount retained by Executive; and provided, further, that to the extent permitted by Section 409A of the Code and Sections 280G and 4999 of the Code, if a different reduction procedure would be permitted without violating Section 409A of the Code or losing the benefit of the reduction under Sections 280G and 4999 of the Code, Executive may designate a different order of reduction.

D. Method of Determination. One or more determinations (each a "Tax Determination") as to whether any of the Parachute Payments will be subject to the Excise Tax shall be made by the Accountant (with all costs related thereto paid by Company). For purposes of determining whether any of the Parachute Payments will be subject to the Excise Tax. (i) all of the Parachute Payments shall be treated as "parachute payments" (within the meaning of Section 280G of the Code) unless and to the extent that in the written advice of the Accountant, certain Payments should not constitute parachute payments, and (ii) all "excess parachute payments" (within the meaning of Section 280G of the Code) shall be treated as subject to the Excise Tax unless and only to the extent that the Accountant advises Company that such excess parachute payments are not subject to the Excise Tax.

7. INTELLECTUAL PROPERTY.

A. Work Product. During the Term, Executive will be expected to perform duties which may lead to and include the discovery, creation, development, or expression of inventions, discoveries, developments, modifications, procedures, ideas, innovations, systems, programs, know-how, literary properties, chemical or biological data, computer software, improvements, processes, methods, formulas, systems, creative works and techniques (collectively, hereinafter "Work Product").

B. Assignment. Executive hereby assigns and transfers to Company, and agrees that Company shall be the sole owner of all Work Product hereafter conceived, developed or made by him (alone or with others), whether during working hours or at any other time, in whole or in part during the Term, whether at the request or upon the suggestion of Company or otherwise, which are useful in, or directly or indirectly related to Company's business or any contemplated business of Company or which relate to, or are conceived, developed, or made in the course of, Executive's employment or which are developed or made from, or by reason of knowledge gained from, such employment.

C. Work for Hire. Executive hereby agrees that all work or other material containing or reflecting any Work Product shall be deemed a work made for hire under the U.S. Copyright Act. To the extent any such Work Product is determined that it is not a work made for hire, Executive hereby assigns to Company all of Executive's right, title and interest, including all rights of copyright, patent, trade secret and other intellectual property rights, in, to and under the Work Product.

D. Continuing Obligations. Executive agrees to disclose promptly all Work Product hereafter conceived or made by him (alone or with others) to which Company is entitled to as provided herein, and agrees not to disclose such Work Product to others except as required by law, without the express written consent of Company. Executive further agrees that during the Term and at any time thereafter, he will, upon request by Company, provide all assistance reasonably required to protect, perfect and use the Work Product, including execution of proper assignments to Company of any and all such Work Product to which Company is entitled, execution of all papers and performance all other lawful acts which Company may deem necessary or advisable for the preparation, prosecution, procurement and maintenance of trademarks, copyrights and or patent applications, and execution of any and all proper documents as shall be required or necessary to vest title in Company to such Work Product. It is understood that all expenses in connection with such trademarks, copyrights or patents, and all applications related thereto, shall be borne by Company, however Company is under no obligation to protect such Work Product, except at its own discretion and to such extent as Company shall deem desirable. Executive shall not receive any additional compensation, other than his Base Salary, for any services that he renders as herein provided.

8. CONFIDENTIAL INFORMATION.

A. Confidential Information. The term "Confidential Information" means all information related to Company's business, which exists or is developed at any time while Executive is an employee, officer and/or director of Company (including prior to and during the Term), including without limitation: (i) strategic and development plans, financial information, equity investors, business plans, co-developer identities, business relationships, business records, project records, market reports, information relating to processes and techniques, technology, research, data, development, trade secrets, know-how, discoveries, ideas, concepts, specifications, diagrams, inventions, technical and statistical data, designs, drawings, models, flow charts, engineering, products, invention disclosures, patent applications, chemical and molecular structures, synthetic pathways, biological data, safety

data, clinical data, developmental data, development route, manufacturing processes, synthetic techniques, analytical data, Work Product, and any and all other proprietary and sensitive information, disclosed or learned, whether oral, written, graphic or machine-readable, whether or not marked confidential or proprietary, whether or not patentable, whether or not copyrightable, including the manner and results in which any such Confidential Information may be combined with other information or synthesized or used by Company, which could prove beneficial in enabling a competitor to compete with Company; or (ii) information that satisfies the definition of a "trade secret" as that term is defined in the Iowa Uniform Trade Secrets Act, IA Code Chpt. 550, as amended from time to time.

B. Acknowledgements. Executive acknowledges and agrees that: (1) his position with Company is one of high trust and confidence, (2) the Confidential Information constitutes a valuable, special and unique asset which Company uses to obtain a competitive advantage over its competitors, (3) his protection of such Confidential Information against unauthorized use or disclosure is critically important to Company in maintaining its competitive advantage, (4) all Confidential Information is the property of Company, and (5) he shall acquire no right, title or interest in, to or under any such Confidential Information.

C. Nondisclosure. Executive promises that he will never (before, during or after the Term): (1) disclose any Confidential Information to any person other than (i) an officer or director of Company; or (ii) any other person who is bound by nondisclosure restrictive covenants to Company and to whom disclosure of such Confidential Information is reasonably necessary or appropriate in connection with performance by Executive of his duties as an employee and officer of Company; or (2) use any Confidential Information except to the extent it is reasonably necessary or appropriate in connection with performance by Executive of his duties as an employee and officer of Company. Executive promises to take all reasonable precautions to prevent the inadvertent or accidental disclosure or misuse of any Confidential Information. In the event Executive receives a request to disclose all or any part of the Confidential Information under the terms of a subpoena or order issued by a court or governmental body, he promises, to the extent permissible by law, to (a) notify Company immediately of the existence, terms and circumstances surrounding such request, (b) consult with Company on the advisability of taking legally available steps to resist or narrow such request, (c) if disclosure is required, furnish only such portion of the Confidential Information as Executive is legally compelled to disclose; and (e) exercise his best efforts to obtain an order or other reliable assurance that confidential treatment will be accorded to the disclosed Confidential Information.

9. NONCOMPETITION.

A. Restricted Period. As used in this Agreement, the term "Restricted Period" means throughout the Term and continuing for twelve (12) months following the date on which Executive's employment is terminated by Company or Executive for any reason.

B. Prohibition on Competition. Executive hereby covenants and agrees that, until the expiration of the Restricted Period, he will not serve as an officer, director, employee, independent contractor, consultant or agent of, or have any ownership interest in, any business entity which engage in any activities within North America that are materially similar to or competitive with Company's pharmaceutical prodrug development and Commercialization activities in the fields of (i) opioid products for the treatment of pain, (ii) stimulant products for the treatment of ADHD, and/or (iii) such other products which Company is actively developing and/or commercializing at the time Executive's employment is terminated. Executive acknowledges that this restrictive covenant will not impair him from becoming gainfully employed, or otherwise earning a livelihood following termination of his employment with Company. If a court of competent jurisdiction finds this non-competition provision

invalid or unenforceable due to unreasonableness in time, geographic scope, or scope of Company's business, then Executive agrees that such court shall interpret and enforce this provision to the maximum extent that such court deems reasonable.

C. Exceptions. Executive's ownership of stock listed on a National Securities Exchange shall not be deemed to violate the prohibitions of Section 9(B). Also, Executive shall not be considered to have violated Section 9(B) if there is a Sale and he becomes an employee, officer, director or shareholder of the purchasing entity.

10. NONSOLICITATION OF EMPLOYEES. Until the expiration of the Restricted Period, Executive shall not, directly or indirectly, either on his own account or for any other person or entity: (a) employ, solicit, induce, advise, or otherwise convince, interfere with, or offer employment to any employee of Company or any consultant to Company; or (b) induce or attempt to induce any such employee or consultant to breach their employment agreement or consulting agreement with Company; provided, however, that Executive shall not be in breach of this provision if any such employee, without inducement or solicitation by Executive, applies for employment at Executive's subsequent employer in response to a general advertisement soliciting employment.

11. REASONABLENESS OF RESTRICTIONS; REMEDIES. Executive has carefully read and considered the restrictive covenants set forth in Sections 8 – 10 hereof, and understands his obligations thereunder, the limitations such obligations will impose upon him after termination of his employment with Company, and that the Restricted Period extends for twelve (12) months after the termination of his employment. Executive has had full opportunity to review with his personal attorney this Agreement, including Sections 8 – 10, before executing the Agreement. Executive agrees that, as a result of his position with Company, the length of the Restricted Period and each restriction set forth in Sections 8, 9 and 10 herein are (1) fair and reasonable, (2) reasonably required for the protection of the legitimate business interests and goodwill established by Company, and (3) not overly broad or unduly burdensome to Executive. Executive acknowledges that his compliance with his obligations and restrictive covenants set forth in this Agreement is necessary to protect the business and goodwill of Company. Executive agrees that his breach of his obligations and/or restrictive covenants under this Agreement may irreparably and continually damage Company, for which money damages may not be adequate. Consequently, Executive agrees that in the event that he breaches or threatens to breach any of the covenants or agreements contained herein, Company shall be entitled to: (a) seek injunctive relief to prevent or halt Executive from breaching this Agreement; and (b) money damages as determined appropriate by a court of competent jurisdiction. Executive hereby agrees that injunctive relief may be granted by a court of competent jurisdiction without the necessity of Company to post bond, or if required to post bond, Executive agrees that the lowest amount permitted shall be adequate. Nothing in this Agreement shall be construed to prohibit Company from pursuing any other remedy available or from seeking to enforce any restrictive covenants to a lesser extent than set forth herein. The Parties agree that all remedies shall be cumulative. If a court or arbitration panel of competent jurisdiction shall have determined by a final judgment that Executive has breached the restrictive covenants set forth in Sections 8 - 10 then Company shall be entitled to recover from Executive all costs and expenses (including, but not limited to, reasonable attorneys' fees) incurred by or assessed against Company. If a court or arbitration panel of competent jurisdiction shall have determined by a final judgment that Executive has not breached the restrictive covenants set forth in Sections 8 - 10 then Executive shall be entitled to recover from Company all costs and expenses (including, but not limited to, reasonable attorneys' fees) incurred by or assessed against Executive.

12. NO PRIOR RESTRICTIONS. Executive hereby represents and warrants to Company that the execution, delivery, and performance by Executive of his duties under this Agreement do not violate any provision of any agreement or restrictive covenant which he has with any former employer or any other entity. Executive further agrees to honor and inform Company of any and all post-employment obligations he has to any former employer or any other entity with which Executive has or had a business relationship.

13. NOTICES. Any notice or communication required or permitted to be given hereunder may be delivered by hand, deposited with an overnight courier, sent by confirmed email, confirmed facsimile, or mailed by registered or certified mail, return receipt requested, postage prepaid, in the case of Company, addressed to Company's principal office marked attention to Company's president, and in the case of Executive, addressed to Executive's personal address as appearing in Company's payroll records, and in each case to such other mail address, e-mail address, or facsimile number as may hereafter be furnished in writing by either Party to the other Party. Such notice will be deemed to have been given as of the date it is hand delivered, emailed, faxed or three (3) days after deposit in the U.S. mail.

14. LIKENESS. Executive hereby grants to Company a perpetual license to use, without further compensation or approval from Executive, his name, image, portrait, voice, likeness and all other rights of publicity, or any derivative or modification thereto that Company may create, in any and all mediums, now known or hereafter developed, provided that such use is in relation to Company's business and consistent with professional business standards, and does not disparage or denigrate Executive.

15. ATTORNEYS' FEES FOR NEGOTIATION OF THIS AGREEMENT. Company shall pay for the attorneys' fees incurred by Executive in connection with the review, negotiation and documentation of this Agreement, up to a maximum of $3,500.

16. INDEMNIFICATION; LIABILITY INSURANCE. Company shall indemnify and hold Executive harmless to the fullest extent permitted by the laws of Company's state of organization or incorporation in effect at the time against and in respect of any and all actions, suits, proceedings, claims, demands, judgments, costs, expenses (including advancement of reasonable attorney's fees), losses, and damages resulting from Executive's performance of Executive's duties and obligations with Company. Executive will be entitled to be covered, both during and, while potential liability exists, by any insurance policies the Employer may elect to maintain generally for the benefit of officers and directors of the Employer against all costs, charges and expenses incurred in connection with any action, suit or proceeding to which Executive may be made a party by reason of being an officer or director of Company in the same amount and to the same extent as Company covers its other officers and directors. These obligations shall survive the termination of Executive's employment with Company.

17. SECTION 409A.

A. This Agreement is intended to comply with Section 409A of the Code and its corresponding regulations, or an exemption, and payments may only be made under this Agreement upon an event and in a manner permitted by Section 409A of the Code, to the extent applicable. Severance benefits under the Agreement are intended to be exempt from Section 409A of the Code under the "short-term deferral" exception, to the maximum extent applicable, and then under the "separation pay" exception, to the maximum extent applicable. Notwithstanding anything in this Agreement to the contrary, if required by Section 409A of the Code, if Executive is considered a "specified employee" for purposes of Section 409A and if payment of any amounts under this Agreement is required to be delayed for a period of six (6) months after separation from service pursuant to Section 409A of the Code, payment of such amounts shall be delayed as required by Section 409A of the Code, and the accumulated amounts shall be paid in a lump sum payment within ten (10) days after the end of the six (6)-month period. If Executive dies during the postponement period prior to the payment of

benefits, the amounts withheld on account of Section 409A of the Code shall be paid to the personal representative of Executive's estate within sixty (60) days after the day of Executive's death. The Parties agree that this Section 17 shall not be construed in a manner so as to accelerate any payments due under this Agreement.

B. All payments to be made upon a termination of employment under this Agreement may only be made upon a "separation from service" under Section 409A of the Code. For purposes of Section 409A of the Code, each payment hereunder shall be treated as a separate payment and the right to a series of installment payments under this Agreement shall be treated as a right to a series of separate payments. In no event may Executive, directly or indirectly, designate the calendar year of a payment. All reimbursements and in-kind benefits provided under the Agreement shall be made or provided in accordance with the requirements of Section 409A of the Code.

18. GENERAL PROVISIONS.

A. Successors and Assigns. The rights and obligations under this Agreement shall survive the termination of Executive's services to Company in any capacity and shall inure to the benefit and shall be binding upon Executive's heirs and personal representatives. This Agreement may be assigned in whole or in part by Company. Executive's duties and obligations are personal in nature and Executive may not assign or delegate any duties under this Agreement without Company's prior written approval. Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation, reorganization or otherwise) to all or substantially all of the business or assets of Company, within 15 days of such succession, expressly to assume and agree to perform this Agreement in the same manner and to the same extent as Company would be required to perform if no such succession had taken place and Executive acknowledges that in such event the obligations of Executive hereunder will continue to apply in favor of the successor. As used in this Agreement, "Company" shall mean Company and any such successor which assumes and agrees to perform the duties and obligations of Company under this Agreement by operation of law or otherwise.

B. Survival of Certain Terms. The terms, conditions and covenants set forth in this Agreement which specifically relate to periods, activities or obligations upon or subsequent to the termination of Executive's employment, including, without limitation, the restrictive covenants contained in Sections 8 – 10, shall survive the termination of this Agreement and Company's employment of Executive hereunder, and the Parties shall remain bound by such terms, conditions and covenants.

C. Governing Law; Jurisdiction. This Agreement shall be governed by and construed and enforced in accordance with the procedural and substantive laws of the State of Iowa, without regard to its conflicts of laws provisions. The litigation of any disputes arising out of this Agreement shall take place in the appropriate federal or state court located in Johnson County, Iowa. The parties, to the extent they can legally do so, hereby consent to service of process, and to be sued in the State of Iowa and consent to the exclusive jurisdiction of the courts of the State of Iowa and the United States District Court for the Southern District of Iowa, as well as to the jurisdiction of all courts to which an appeal may be taken from such courts, for the purpose of any suit, action or other proceeding arising out of any of their obligations hereunder or with respect to the transactions contemplated hereby, and expressly waive any and all objections they may have to venue in such courts. Notwithstanding the foregoing, should Executive refuse to comply with an order or judgment of such court, then Company may enforce this Agreement and the order or judgment of such court in any jurisdiction it deems appropriate.

D. Severability, Reform. If any provision of this Agreement is determined to be void, invalid or unenforceable, the remainder shall be unaffected and shall be enforceable as if the void, invalid or unenforceable part was not a provision of the Agreement.

E. Entire Agreement. This Agreement and its attached exhibits, which by this reference are hereby incorporated into and made a part of this Agreement as if set forth herein verbatim, contain the entire understanding of the parties to this Agreement and supersede and replace all former agreements or understandings, oral or written, between Company and Executive, including any offer letter sent to Executive, regarding the subject matter hereof.

F. Modification and Waiver. This Agreement may not be amended except by a written instrument signed by both Parties which specifically refers to the particular provision or provisions being amended. No provision of this Agreement may be waived except in a written instrument that specifically refers to the particular provision or provisions being waived and is signed by the Party against whom the waiver is being asserted. No waiver by any Party of any right, power or privilege hereunder shall constitute a waiver of any other right, power or privilege hereunder, and no waiver by any party of any breach of a provision hereunder shall constitute a waiver of any other breach of that or any other provision of this Agreement.

G. Assistance in Litigation. Executive shall reasonably cooperate with Company in the defense or prosecution of any claims or actions now in existence or that may be brought in the future against or on behalf of Company that relate to events or occurrences that transpired while Executive was employed by Company. Executive's cooperation in connection with such claims or actions shall include being available to meet with counsel to prepare for discovery or trial and to act as a witness on behalf of Company at mutually convenient times. Executive also shall cooperate fully with Company in connection with any investigation or review by any federal, state or local regulatory authority as any such investigation or review relates, to events or occurrences that transpired while he was employed by Company. Notwithstanding anything to the contrary in this Section 18(G), Executive's cooperation under this Section 18(G) shall be limited to the two (2) year period following Executive's termination of employment, unless otherwise mutually agreed between Executive and Company in writing and, for each day that Executive performs services under this Section 18(G) after the final payment by Company of any and all severance compensation due to Executive under Section 2(D), Company shall pay Executive a per diem cash amount at Executive's Base Salary rate on the date of termination.

H. Beneficiaries; References. Executive shall be entitled to select (and change to the extent permitted under any applicable law) a beneficiary or beneficiaries to receive any compensation or benefit payable hereunder following Executive's death, and may change such election, in either case by giving Company written notice thereof. In the event of Executive's death or a judicial determination of Executive's incompetence, reference in this Agreement to Executive shall be deemed, where appropriate, to refer to Executive's beneficiary, estate or other legal representative. Any reference to any gender in this Agreement shall include, where appropriate, the other gender.

I. Voluntary Agreement. Each Party to this Agreement has read and fully understands the terms and provisions hereof, has had an opportunity to review this Agreement with legal counsel, has executed this Agreement based upon such party's own judgment and advice of counsel, and knowingly, voluntarily and without duress, agrees to all of the terms set forth in this Agreement. The Parties have participated jointly in the negotiation and drafting of this Agreement. If an ambiguity or question of intent or interpretation arises, this Agreement will be construed as if drafted jointly by the Parties and no presumption or burden of proof will arise favoring or disfavoring any party because of authorship of any provision of this Agreement. Except as expressly set forth in this Agreement, neither the Parties nor their affiliates, advisors and/or their attorneys have made any representation or warranty, express or implied, at law or in equity with respect of the subject matter contained herein. Without limiting the generality of the previous sentence, Company, its affiliates, advisors and/or attorneys have made no representation or warranty to Executive concerning the state or federal tax consequences to Executive regarding the transactions contemplated by this Agreement.

J. Effect of Headings. Headings to sections and paragraphs of this Agreement are for reference only, and do not form a part of this Agreement, or effect the interpretation of this Agreement.

K. Counterparts. This Agreement may be executed in counterparts, including by transmission of facsimile or PDF copies of signature pages, each of which shall for all purposes are deemed to be an original and all of which shall constitute on instrument. All signatures of the parties transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

[SIGNATURE PAGE FOLLOWS]

SIGNATURE PAGE
OF
EMPLOYMENT AGREEMENT

IN WITNESS WHEREOF, Company has caused this Agreement to be duly executed and delivered by its duly authorized officer, and Executive has duly executed and delivered this Agreement, as of the date first written on page 1 of this Agreement.

KEMPHARM, INC. ("COMPANY"):

By /s/ Travis Mickle
Travis Mickle, President

GORDON K. JOHNSON ("EXECUTIVE"):

/s/ Gordon K. Johnson

EXHIBIT A
LIST OF DUTIES

1. Financial responsibilities
    a. Monitor and manage capital needs
    b. Create and manage annual budget
    c. Develop financial and tax strategies
    d. Monitor cash balances and cash forecasts
    e. Oversee the issuance of financial information
    f. Participate in conference calls with the investment community
    g. Maintain banking relationships
    h. Represent the company with investment bankers and investors
    i. Report financial results to the President and the Board of Directors
2. Fund raising processes
    a. Lead private financing round(s) prior to any public offering
3. Attract and manage new investors
4. Plan and develop successful funding and marketing strategy with respect to development goals and preparation of IPO
    a. Lead public offering/IPO
5. Create effective IPO strategy including timelines and milestones
6. Assess internal and external resources required and develop budget for IPO process
7. Create and maintain any required accounting, IT, regulatory and audit processes and systems in preparation of IPO
8. Create and/or manage development of regulatory filings related to IPO including S-1
9. Lead discussions and manage relationships with investment banks, underwriters and analysts
10. Plan and manage any road shows related to public offering(s)
11. Operational responsibilities
    a. Manage the accounting, human resources, investor relations, legal, tax, and treasury departments
    b. Implement operational best practices
    c. Understand and mitigate key elements of the company’s risk profile
    d. Construct and monitor reliable control systems
    e. Maintain appropriate insurance coverage
    f. Ensure that the company complies with all legal and regulatory requirements
    g. Ensure that record keeping meets the requirements of auditors and government agencies
    h. Report risk issues to the audit committee of the board of directors
    i. Maintain relations with external auditors and investigate their findings and recommendations
12. Strategic role
    a. Assist in formulating the company’s future direction and supporting strategic initiatives
    b. Develop, monitor and direct the implementation of strategic business plans

c. Introduce new and manage current and future strategic relationships

d. At the direction of the President, lead discussions and create term structures in the best interest of the company during negotiations toward any strategic agreements

e. Participate in key decisions as a member of the executive management team

f. Maintain in-depth relations with all members of the management team

EXHIBIT B
LIST OF KEY PERFORMANCE OBJECTIVES

PRE-IPO

1. Develop an IPO roadmap for the company, with timelines and milestone projects
2. Gauge internal and external resources needed
    a. determine IPO/operations/combined budget needed
3. Raise the needed money in the current round
    a. Target raise for current round is $9MM.
        i. Approximately $2M has been raised to date with expectation of $3-4 from current company efforts.
    b. Lead marketing/org efforts with current customer base
4. Lead and complete S-1 generation.
5. Lead and complete discussions for an IPO banker
6. Lead and complete company through successful IPO
7. Work with IPO counsel
8. Explore alternatives

EXHIBIT C
LIST OF OUTSIDE BUSINESS ACTIVITIES

1. Executive currently receives regular quarterly compensation from Ortek Therapeutics resulting from a previous engagement. Executive occasionally provides advice to Ortek Therapeutics. During the term of employment under this Agreement, Executive shall not increase the amount of time expended in service of Ortek Therapeutics nor serve as an officer or director of Ortek Therapeutics without Company's prior written authorization.

2. Executive recently assisted MOJO Organics with regard to a financing and will be eligible for compensation for such prior assistance.

EXHIBIT 10.19

Execution version

KEMPHARM, INC.

EMPLOYMENT AGREEMENT
TRAVIS MICKLE
DATED MAY 30, 2014

KEMPHARM, INC.
EMPLOYMENT AGREEMENT

This EMPLOYMENT AGREEMENT ("Agreement") is made and entered into effective as of the 30th day of May 2014, by and between KEMPHARM, INC., an Iowa corporation (the "Company") and TRAVIS C. MICKLE, PH.D. ("Executive") (each being a "Party" hereto and together constituting the "Parties").

WHEREAS, Executive is currently employed by Company as its President and Chief Executive Officer and Company desires to continue to employ Executive in such capacity under the terms and conditions set forth below.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, and for other good and valuable consideration, the receipt, adequacy and sufficiency of which is hereby acknowledged, the Parties hereto agree as follows:

1. EMPLOYMENT.

A. Employment. Company hereby continues to employ Executive and Executive hereby accepts such continued employment with Company as President and Chief Executive Officer, or in such other capacities as Company shall reasonably determine from time to time, upon the terms and conditions set forth in this Agreement.

B. Effective Date and Term. Company's continued employment of Executive under this Agreement shall commence effective as of May 30, 2014 (the "Effective Date"), and continue until the Date of Termination (defined in Section 4(A)) (hereinafter such period of time from the commencement until termination of employment shall be referred to as the "Employment Term").

C. Duties of Executive. During the Employment Term, all of the following shall apply: Executive shall carry out, perform and comply with such reasonable and lawful orders, directions, and written rules and policies (including those rules and policies memorialized in meeting minutes) as are assigned or set by Company's board of directors (the "Board of Directors") from time to time. Executive shall report to, receive directions from and be reviewed by the Board of Directors. Executive's duties shall include the duties and responsibilities commonly associated with a President and Chief Executive Officer of a company similar to Company. Subject to the limitations of Section 4(E)(3)(iv), the Board of Directors retains the right to modify Executive's responsibilities pursuant to the legitimate business needs of Company. The Board of Directors may, but is not required to, nominate (from time to time) Executive for election by the shareholders to a seat on the Board of Directors.

D. Duty of Loyalty. Except as set forth on Exhibit A, during the Employment Term, Executive shall not, without the prior written consent of the Board of Directors, accept other employment or render or perform other services for compensation. Executive shall devote Executive's full business time and attention and Executive's best efforts to the faithful performance of Executive's duties as an executive officer and employee of Company. Executive's expenditure of reasonable amounts of time for teaching, or on behalf of charitable or professional organizations shall not be deemed a breach of this Agreement, provided such activities do not interfere with the performance of Executive's duties and responsibilities hereunder, including the limitations in Sections 7 – 9, and Executive has provided prior written notice to the Board of Directors and the Board of Directors has provided prior written approval of such activities, as determined in the Board of Directors' reasonable sole discretion, which approval will not be unreasonably withheld. Nothing in this Agreement shall preclude Executive's expenditure of reasonable amounts of time on personal business; provided such activities do not materially interfere with the performance of Executive's duties and responsibilities hereunder, including the limitations in Sections 7 – 9, as determined in the Board of Directors' reasonable sole discretion.

E. Place of Performance. Executive's principal place of employment during the Employment Term will be Company's headquarters in Coralville, Iowa; provided that, from time to time, Executive will perform his duties from Executive's personal residence or a Company worksite in the Orlando, Florida metropolitan area. Notwithstanding the foregoing, Executive understands and agrees that Executive's presence may be required at Company headquarters or other Company worksite, or Executive may be required to travel for business, in each case, in accordance with Executive's duties and responsibilities under this Agreement, as business needs require or may change over time and as reasonably requested by the Board of Directors.

2. COMPENSATION AND BENEFITS. In consideration of the services to be rendered by Executive pursuant to this Agreement, as well as Executive's covenants set forth in this Agreement, Company shall pay to Executive the following compensation, which shall be the entire and exclusive compensation for all of Executive's services rendered and other obligations taken on Company's behalf:

A. Annual Base Salary. During the Employment Term, Company shall pay to Executive an annualized base salary of $234,000 (the "Base Salary"), provided that the Base Salary will be increased automatically to $400,000 upon the successful closing of the debt financing between Company and affiliates of Deerfield Management Company, L.P., which is expected to be in an amount of up to $60,000,000, which financing is expected to close on or around May 30, 2014 (the "Financing"). For calendar years in which Executive is employed for less than the full year, the Base Salary shall be prorated and accrue on a per diem basis for only those days on which Executive was employed during the Employment Term. The Base Salary will be paid by Company in equal installments according to Company's customary payroll practices, but in any event not less frequently than monthly, and shall be subject to all mandatory and voluntary payroll deductions. Executive's Base Salary shall be reviewed periodically by the Board of Directors or the Compensation Committee of the Board of Directors (the "Compensation Committee") if so designated and may be appropriately increased from time to time in the sole discretion of Board of Directors or the Compensation Committee, as applicable, and may only be decreased proportionately with any across-the-board decrease applicable to all senior executives of Company.

B. Incentive Compensation. During the Employment Term, Executive shall be entitled to participate in all short-term and long-term incentive programs established by Company, at such levels as the Board of Directors or Compensation Committee determines. Executive's annual short-term incentive opportunity target shall be no less than 50% of the Base Salary, as such percentage may be increased from time to time (the "Target Annual Bonus"). The actual amount of such annual incentive compensation shall be determined in accordance with the applicable plans based on achievement of individual and Company performance objectives established in advance by the Board of Directors or the Compensation Committee, taking into account input from Executive, and such actual annual short term incentive compensation amount may be more or less than the target amount. No minimum incentive is guaranteed.

C. Retirement, Welfare and Other Benefit Plans and Programs. During the Employment Term, Executive shall be entitled to participate in the employee retirement and welfare benefit plans and programs made available to Company's other senior level executives as a group, as such retirement and welfare plans may be in effect from time to time and subject to the eligibility requirements of such plans, including but not limited to, life, health and disability plans, and a 401(k) retirement plan and similar or other plans. During the Employment Term, Executive shall be eligible for vacation, sick leave and holidays in accordance with Company's vacation, sick and holiday and other pay for time not worked policies. Nothing in this Agreement or otherwise shall prevent Company from

amending or terminating after the Effective Date any retirement, welfare or other employee benefit plans, programs, policies or perquisites from time to time as Company deems appropriate, and Executive's participation in any such plan, program, policy and perquisite shall be subject to the terms, provisions, rules and regulations thereof.

D. Reimbursement of Expenses. During the Employment Term, Company shall reimburse Executive for all reasonable and necessary business expenses that Executive incurs while performing Executive's duties under this Agreement in accordance with Company's general policies of expense reimbursement in effect from time to time.

3. COMPANY POLICIES AND PROCEDURES. Executive agrees to observe and comply with the reasonable and lawful policies and procedures of Company as adopted by the Board of Directors in writing or reflected in the formal minutes of the Board of Directors or committee thereof, respecting performance of Executive's duties and to carry out and to perform the reasonable and lawful orders and directions stated by Company to Executive, from time to time, either orally or in writing. Executive agrees that Executive will be subject to any compensation clawback, recoupment and anti-hedging policies that may be applicable to Executive as an executive of Company, as in effect from time to time and as approved by the Board of Directors or a duly authorized committee thereof.

4. TERMINATION.

A. Notice of Termination and Date of Termination. Each Party must give written notice to the other of the intent to terminate this Agreement and Executive's employment hereunder ("Notice of Termination"). The Notice of Termination must specify a date of termination of employment, which shall incorporate any period of notice required by this Section 4 ("Date of Termination").

B. Executive's Death or Total Disability. Executive's employment under this Agreement shall terminate upon the date of Executive's death. Additionally, if, during the Employment Term, Executive suffers a Total Disability (as defined in Section 4(E)(3)(iii), then Company may terminate Executive's employment under this Agreement by giving Executive a Notice of Termination specifying the Date of Termination. Upon such termination due to death or Total Disability, Company shall pay to Executive or Executive's estate (i) any Base Salary that has fully accrued but not been paid as of the effective date of such termination, as well as any vested and accrued employment benefits subject to the terms of any applicable employment benefit arrangements and applicable law ("Accrued Benefits") and (ii) a prorated bonus for the year in which Executive's death or Disability occurs, which bonus shall be calculated and paid in the same manner as set forth below in Section 4(E)(1)(b). All other rights and benefits of Executive and Executive's dependents hereunder shall terminate upon such termination, except for any right to the continuation of benefits otherwise provided by law.

C. By Company with Cause. Company may terminate with Cause (as defined in Section 4(E)(3)(i)) Executive's employment hereunder at any time. In order to terminate Executive's employment hereunder with Cause, Company must give Notice of Termination to Executive specifying the Cause and the Date of Termination, which may be the same date as the date of the Notice of Termination. Upon termination with Cause, Company shall pay to Executive all Accrued Benefits. All other rights and benefits of Executive hereunder shall terminate upon such termination, except for any right to the continuation of benefits otherwise provided by law.

D. By Executive without Good Reason or by Mutual Agreement. Executive may terminate Executive's employment without Good Reason (as defined in Section 4(E)(3)(iv) at any time by giving Company Notice of Termination at least 30 days prior to the Date of Termination designated by Executive. In addition, this Agreement may be terminated at any time by written mutual

agreement of the Parties with or without notice. Upon termination of Executive's employment by Executive without Good Reason or termination by mutual agreement of the parties, Company shall pay to Executive all Accrued Benefits. All other rights and benefits of Executive hereunder shall terminate upon such termination, except for any right to the continuation of benefits otherwise provided by law.

E. Without Cause by Company or For Good Reason by Executive. Company may terminate Executive's employment at any time without Cause (as defined in Section 4(E)(3)(ii)) by giving Executive a Notice of Termination at least one day prior to the Date of Termination**,** and Executive may terminate Executive's employment for Good Reason by giving Company a Notice of Termination in accordance with Section 4(E)(3)(iv) below. Upon termination of Executive's employment without Cause by Company or for Good Reason by Executive, Company will pay Executive (i) all Accrued Benefits, (ii) the severance compensation payable set forth below in this Section 4(E), if Executive executes and does not revoke a Release (as defined in Section 4(E)(3)(v). All other rights and benefits of Executive hereunder shall terminate upon such termination, except for any right to the continuation of benefits otherwise provided by law.

(1) In the event that Company terminates Executive's employment without Cause or Executive terminates Executive's employment for Good Reason, and Executive executes and does not revoke a Release, then Company shall pay to Executive as severance compensation, the following:

(a) Executive's Base Salary (at the rate payable at the time of such termination) for a period of 18 months following the Date of Termination. Such severance compensation shall be paid by Company in equal installments according to Company's customary payroll practices, with the first payment made on the first regularly scheduled pay day immediately following the 60th day following the Date of Termination; provided, however, that if such termination of employment occurs within 60 days before, upon or within one year following a Sale (as defined in Section 4(E)(3)(vi)), then Company shall pay an amount equal to one and one half times the sum of Executive's Base Salary (at the rate payable at the time of such termination) plus Executive's Target Annual Bonus, which amount shall be paid (i) in a lump sum on the first regularly scheduled pay day immediately following the 60th day following the Date of Termination, but the amount will only be paid in a lump sum if the Sale constitutes a "change in control event" as defined under Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"); and (ii) notwithstanding the preceding clause (i), if the Sale is not a "change in control event" as defined under Section 409A of the Code and penalty taxes may result under Section 409A of the Code if such severance compensation is paid in a lump sum, then the severance compensation will be paid in equal installments according to Company's customary payroll practices, with the first payment made on the first regularly scheduled pay day immediately following the 60th day following the Date of Termination.

(b) To the extent Executive has an annual incentive compensation award for the year of termination in which the Date of Termination occurs, Executive shall receive a pro rata Target Annual Bonus award payment for the year in which the Date of Termination occurs (measured at the target level, identified "goal" target or other similar target, without taking into account any incentive override for above goal performance, or any project-specific or other non-standard incentives), which shall be paid on the first regularly scheduled pay day immediately following the 60th day following the Date of Termination. The pro rata amount shall be determined as the Target Annual Bonus in effect for the year in which the Date of Termination occurs, multiplied by a fraction, the numerator of which is the number of days in which Executive was employed by Company during the year in which the Date of Termination occurs, including the Date of Termination, and the denominator of which is 365.

(c) During the 18 month period following the Date of Termination, if Executive timely elects continued coverage under Section 4980B of the Code ("COBRA"), Company will reimburse Executive for the monthly COBRA cost of continued health coverage under the health plans of Company paid by Executive for Executive, and, if applicable, Executive's spouse and dependents, less the amount that Executive would be required to contribute for health coverage if Executive were an active employee of Company; provided that such reimbursements shall not continue beyond the first to occur of (x) the date on which Executive fails to pay the COBRA cost of continuation coverage under the health plans of Company and (y) the date on which Executive is eligible for substantially similar coverage from a subsequent employer. These reimbursements will commence on the first regularly scheduled pay day immediately following the 60th day following the Date of Termination and will be paid on the first regularly scheduled pay day of each month, provided that Executive demonstrates proof of payment of the applicable premiums prior to the applicable reimbursement payment date.

(d) The vesting of each outstanding equity award granted to Executive will accelerate so that such awards will be fully vested as of the Date of Termination. If any equity awards vest based on the attainment of performance goals, the performance goals will be deemed to have met as of the Date of Termination, unless such greater amount of vesting is provided for in the applicable award agreements.

(2) Payment of the severance compensation shall be subject to all mandatory and voluntary payroll deductions. In the event that Executive materially breaches any of Executive's post-employment covenants or obligations set forth in this Agreement that the Board of Directors reasonably determines is not cured (to the extent the breach is curable as determined by the Board of Directors) within 15 days following written notice from Company, then the payment of severance compensation pursuant to this section shall terminate immediately and permanently. During the period that Executive is paid the foregoing severance compensation, Executive shall not further accrue any other benefits under any benefit plans of which Executive was a participant while employed by Company, except as otherwise required by applicable federal or state law, by the express terms of this Agreement, or by the express terms of such benefit plans; provided, however, that if Executive becomes entitled to and receives the payments described in Section 4(E)(1) of this Agreement, Executive hereby waives Executive's right to receive payments under any severance plan or similar program applicable to employees of Company.

(3) For purposes of this Agreement:

(i) Executive's employment will be deemed to have been terminated by Company "with Cause" if the termination arises from a determination by the Board of Directors that (a) Executive is convicted of (or pleads guilty or *nolo contendere* to) a crime constituting a misdemeanor involving dishonesty or moral turpitude or any crime constituting a felony; (b) Executive neglects, refuses or fails to perform Executive's material duties hereunder (other than a failure resulting from Executive's incapacity due to physical or mental illness); (c) Executive commits a material act of dishonesty or otherwise engages in or is guilty of gross negligence or willful misconduct in the performance of Executive's duties; or (d) Executive materially breaches the provisions of any written non-competition, non-disclosure or non-solicitation agreement, or any other agreement in effect with Company, including without limitation the provisions of Sections 7 – 9 of this Agreement or Company's applicable written code of business conduct and compliance

policies; provided, however, Executive shall have 15 days following Company's provision of the Notice of Termination specifying a condition under clause (b), (c) or (d) constituting Cause to cure such condition (to the extent the condition is curable as reasonably determined by the Board of Directors), before which time a termination with Cause cannot be effective unless such condition remains uncured as reasonably determined by the Board of Directors.

(ii) Executive's employment shall be deemed to have been terminated by Company "without Cause" if such termination is not with "Cause," and such termination is not the result of Executive's death or Executive suffering a Total Disability.

(iii) Executive shall be deemed to have suffered a "Total Disability" if (a) Executive is granted long-term disability benefits under Company's long-term disability plan or (b) Executive becomes physically or mentally disabled so that Executive is unable to perform the essential functions of Executive's job, with or without reasonable accommodation in accordance with the Americans with Disabilities Act and its amendments, for a period of 180 consecutive days.

(iv) Executive shall be deemed to have terminated Executive's employment for "Good Reason" if Executive terminates Executive's employment on account of the occurrence of one or more of the following without Executive's consent:

(a) A material diminution by Company of Executive's authority, title, duties or responsibilities, other than a diminution of authority, duties or responsibilities during a 15-day cure period following Company's notice to Executive of a termination with Cause, temporarily while Executive is physically or mentally incapacitated, or otherwise as required by applicable law;

(b) A material change in the geographic location at which Executive must perform services under this Agreement (which, for purposes of this Agreement, means the requirement that Executive work from a location more than 50 miles from the Coralville, Iowa or Orlando, Florida or any other location at which Executive principally performs his duties immediately prior to the relocation);

(c) A material diminution in Executive's Base Salary which is not the result of an across-the-board reduction in base salaries of other senior executives of Company; or

(d) Any action or inaction that constitutes a material breach by Company of this Agreement, including the failure of Company to pay any amounts due under Section 2 or the failure of Company to obtain from its successors the express assumption and agreement required under Section 17(A).

Executive must provide Notice of Termination for Good Reason to Company within 60 days after the event constituting Good Reason. Company shall have a period of 30 days in which it may correct the act or failure to act that constitutes the grounds for Good Reason as set forth in Executive's Notice of Termination. If Company does not correct the act or failure to act, then, in order for the termination to be considered a Good Reason termination, Executive must terminate Executive's employment for Good Reason by giving Notice of Termination with a Date of Termination designated by Executive which is at least 30 days after the date on which the Notice of Termination is given but not more than 90 days after the end of the cure period.

(v) The term "Release" shall mean a release of claims approved by Company, which shall be in the form attached hereto as Exhibit B, subject to revision based on advice from Company counsel to comply with changes in applicable law.

(vi) The term "Sale" means the sale of more than 50% of the equity of Company, a merger of Company with an entity the equity of which after the merger the stockholders of Company immediately prior to such merger own less than 50%, or the sale of all or substantially all of the assets of Company, in any case to a person or entity not affiliated with Company. Neither a recapitalization nor change of form of Company shall be considered a Sale. Additionally, a "Sale" shall not be deemed to have occurred as a result of a lender exercising any of its remedies in connection with the occurrence or continuation of an event of default under that certain Facility Agreement, to be dated as of or around May 30, 2014, by and between Company and Deerfield Private Design Fund III, L.P.

(4) In the event Company terminates Executive's employment with Cause, Executive voluntarily terminates Executive's employment with Company other than for Good Reason, or such employment is terminated by mutual agreement or as the result of Executive's death or Total Disability, Executive shall not be entitled to payment of any severance compensation under this Agreement and Executive shall not be entitled to receive severance benefits under any Company severance plan.

F. Cooperation after Notice of Termination. Following any Notice of Termination by either Company or Executive, Executive, if requested by Company, shall reasonably cooperate with Company in all matters relating to the winding up of Executive's pending work on behalf of Company and the orderly transfer of any such pending work to other employees of Company as may be reasonably designated by Company following the Notice of Termination. Executive shall not receive any additional compensation during the Employment Term, other than Executive's Base Salary, for any services that Executive renders as provided in this Section 4(F). For each day that Executive performs services under this Section 4(F) after the Employment Term, Executive shall be reimbursed for his reasonable out-of-pocket expenses and, after the final payment by Company of any and all severance compensation due to Executive under Section 4(E), Company shall pay Executive a per diem cash amount at Executive's Base Salary rate on the Date of Termination.

G. Surrender of Records and Property. Upon termination of employment, Executive shall promptly turn-over or deliver to Company at Company's expense all property of Company in Executive's possession, custody, or control, including without limitation thereto: records (paper and electronic), files (paper and electronic), documents (paper and electronic), electronic mail (e-mail) on Company accounts, letters, financial information, memorandum, notes, notebooks, contracts, project manuals, specifications, reports, data, tables, calculations, data, electronic information, and computer disks, in all cases whether or not such property constitutes Confidential Information (as defined below), and all copies thereof; all keys to motor vehicles, offices or other property of Company; and all computers, cellular phones and other property of Company. If any of the foregoing property of Company is electronically stored on a computer or other storage medium owned by Executive or a friend, family member or agent of Executive, such information shall be copied onto a computer disk to be delivered to Company together with a written statement of Executive that the information has been deleted from such person's computer or other storage medium.

H. Resignation from Boards. If Executive's employment with Company terminates with Cause, Executive shall immediately resign from all boards of directors of Company, any affiliates and any other entities for which Executive serves as a representative of Company. If Executive's employment is terminated for any other reason (other than death), Executive shall immediately resign from all boards of directors of Company, any affiliates and any other entities for which Executive serves as a representative of Company, if requested by the Board of Directors and consistent with the terms of the KemPharm, Inc. Voting Agreement dated on around the Effective Date (the "Voting Agreement"). To the extent Executive remains as a member of any boards of directors of Company, any affiliates and other entities following termination of employment (other than a termination of employment by Company with Cause), Executive shall remain on such boards for the remainder of the then current term and may be re-elected in accordance with the normal election procedures for the applicable board and consistent with the Voting Agreement.

5. SECTION 280G OF THE CODE.

A. Shareholder Approval, etc. At any time when Company is a corporation described in Section 280G(b)(5)(A)(ii)(I) of the Code, if a nationally recognized United States public accounting firm selected (and paid for) by Company (the "Accountant") determines that any payment or benefit (including any accelerated vesting of equity awards) made or provided, or to be made or provided, by Company (or any successor thereto or affiliate thereof) to or for the benefit of Executive, whether pursuant to the terms of this Agreement, any other agreement, plan, program or arrangement of or with Company (or any successor thereto or affiliate thereof) or otherwise in connection with, or arising out of, a change in ownership or an effective control of Company or of a substantial portion of assets (any such payment or benefit, a "Parachute Payment"), will be subject to the excise tax imposed by Section 4999 of the Code or any comparable tax imposed by any replacement or successor provision of United States tax law (the "Excise Tax"), if Executive waives Executive's right to receive all or a portion of the Parachute Payments unless such Parachute Payments are approved by the shareholders pursuant to Treas. Reg. Section 1.280G-1, Q&A-7, Company shall in good faith seek to obtain approval of payment of such waived Parachute Payments in accordance with the shareholder approval requirements described in Treas. Reg. Section 1.280G-1, Q&A-7.

B. Better Off. If, following the date when Company ceases to be corporation described in Section 280G(b)(5)(A)(ii)(I) of the Code, it is determined by the Accountant that Executive shall become entitled to a Parachute Payment, which Parachute Payment shall be subject to the Excise Tax, then Company shall cause to be determined, before any amounts of any Parachute Payment is paid to Executive, which of the following two alternative forms of payment would result in Executive, on an after-tax basis, retaining the greater amount of Parachute Payments, notwithstanding that all or a portion of the Parachute Payments may be subject to the Excise Tax: (a) payment in full of all Parachute Payments or (b) payment of only a part of the Parachute Payments so that Executive receives the largest payment possible without the imposition of the Excise Tax (a "Reduced Payment"). For purposes of this Section 5(B), the Accountant shall take into account all applicable federal, state and local income and employment taxes and the Excise Tax (all computed at Executive's actual marginal tax rate). If a Reduced Payment is made, (i) Executive shall have no rights to any additional payments and/or benefits constituting the Parachute Payments, and (ii) reduction in payments and/or benefits shall occur in the manner that results in the greatest economic benefit to Executive as determined in Section 5(C).

C. Method of Determination. One or more determinations (each a "Tax Determination") as to whether any of the Parachute Payments will be subject to the Excise Tax shall be made by the Accountant (with all costs related thereto paid by Company). For purposes of determining whether any of the Parachute Payments will be subject to the Excise Tax: (i) all of the Parachute Payments shall be treated as "parachute payments" (within the meaning of Section 280G of the Code) unless

and to the extent that in the written advice of the Accountant, certain Payments should not constitute parachute payments, and (ii) all "excess parachute payments" (within the meaning of Section 280G of the Code) shall be treated as subject to the Excise Tax unless and only to the extent that the Accountant advises Company that such excess parachute payments are not subject to the Excise Tax.

6. INTELLECTUAL PROPERTY.

A. Work Product. During the Employment Term, Executive will be expected to perform duties which may lead to and include the discovery, creation, development, or expression of inventions, discoveries, developments, modifications, procedures, ideas, innovations, systems, programs, know-how, literary properties, chemical or biological data, computer software, improvements, processes, methods, formulas, systems, creative works and techniques (collectively, hereinafter "Work Product").

B. Assignment. Executive hereby assigns and transfers to Company, and agrees that Company shall be the sole owner of all Work Product conceived, developed or made by Executive (alone or with others), whether during working hours or at any other time, in whole or in part during Executive's employment with Company (including prior to, during and after the Employment Term), whether at the request or upon the suggestion of Company or otherwise, which are useful in, or directly or indirectly related to Company's business or any contemplated business of Company or which relate to, or are conceived, developed, or made in the course of, Executive's employment or which are developed or made from, or by reason of knowledge gained from, such employment.

C. Work for Hire. Executive hereby agrees that all work or other material containing or reflecting any Work Product shall be deemed a work made for hire under the U.S. Copyright Act. To the extent any such Work Product is determined that it is not a work made for hire, Executive hereby assigns to Company all of Executive's right, title and interest, including all rights of copyright, patent, trade secret and other intellectual property rights, in, to and under the Work Product.

D. Continuing Obligations. Executive agrees to disclose promptly all Work Product conceived or made by Executive (alone or with others) to which Company is entitled to as provided herein, and agrees not to disclose such Work Product to others except as required by law or as is reasonably necessary or appropriate in connection with the performance of Executive's duties as an employee and officer of Company, without the express written consent of Company. Executive further agrees that during the Employment Term and at any time thereafter, Executive will, upon request by Company, provide all assistance reasonably required to protect, perfect and use the Work Product, including execution of proper assignments to Company of any and all such Work Product to which Company is entitled, execution of all papers and performance all other lawful acts which Company may deem necessary or advisable for the preparation, prosecution, procurement and maintenance of trademarks, copyrights and or patent applications, and execution of any and all proper documents as shall be required or necessary to vest title in Company to such Work Product. It is understood that all expenses in connection with such trademarks, copyrights or patents, and all applications related thereto, shall be borne by Company, however Company is under no obligation to protect such Work Product, except at its own discretion and to such extent as Company shall deem desirable. Executive shall not receive any additional compensation during the Employment Term, other than Executive's Base Salary, for any services that Executive renders as herein provided. For each day that Executive performs services under this Section 6(D) after the Employment Term, Executive shall be reimbursed for his reasonable out-of-pocket expenses and, after the final payment by Company of any and all severance compensation due to Executive under Section 4(E), Company shall pay Executive a per diem cash amount at Executive's Base Salary rate on the Date of Termination.

7. CONFIDENTIAL INFORMATION.

A. Confidential Information. The term "Confidential Information" means all information related to Company's business, which exists or is developed at any time while Executive is an employee, officer and/or director of Company (including prior to, during and after the Employment Term), including without limitation: (i) strategic and development plans, financial information, equity investors, business plans, co-developer identities, business relationships, business records, project records, market reports, information relating to processes and techniques, technology, research, data, development, trade secrets, know-how, discoveries, ideas, concepts, specifications, diagrams, inventions, technical and statistical data, designs, drawings, models, flow charts, engineering, products, invention disclosures, patent applications, chemical and molecular structures, synthetic pathways, biological data, safety data, clinical data, developmental data, development route, manufacturing processes, synthetic techniques, analytical data, Work Product, and any and all other proprietary and sensitive information, disclosed or learned, whether oral, written, graphic or machine-readable, whether or not marked confidential or proprietary, whether or not patentable, whether or not copyrightable, including the manner and results in which any such Confidential Information may be combined with other information or synthesized or used by Company, which could prove beneficial in enabling a competitor to compete with Company; or (ii) information that satisfies the definition of a "trade secret" as that term is defined in the Iowa Uniform Trade Secrets Act, IA Code Chpt. 550, as amended from time to time; provided, however, that information that is in the public domain (other than as a result of a breach by Executive of this Section 7), approved for release by Company, or lawfully obtained from a third party who is not known by Executive (after Executive's reasonable inquiry) to be bound by a confidentiality agreement with Company is not Confidential Information.

B. Acknowledgements. Executive acknowledges and agrees that: (1) Executive's position with Company is one of high trust and confidence, (2) the Confidential Information constitutes a valuable, special and unique asset which Company uses to obtain a competitive advantage over its competitors, (3) Executive's protection of such Confidential Information against unauthorized use or disclosure is critically important to Company in maintaining its competitive advantage, (4) all Confidential Information is the property of Company, and (5) Executive shall acquire no right, title or interest in, to or under any such Confidential Information.

C. Nondisclosure. Executive promises that Executive will never (before, during or after the Employment Term): (1) disclose any Confidential Information to any person other than (i) an officer or director of Company; or (ii) any other person who is bound by nondisclosure restrictive covenants to Company and to whom disclosure of such Confidential Information is reasonably necessary or appropriate in connection with performance by Executive of Executive's duties as an employee and officer of Company; or (2) use any Confidential Information except to the extent it is reasonably necessary or appropriate in connection with performance by Executive of Executive's duties as an employee and officer of Company. Executive promises to take all reasonable precautions to prevent the inadvertent or accidental disclosure or misuse of any Confidential Information. In the event Executive receives a request to disclose all or any part of the Confidential Information under the terms of a subpoena or order issued by a court or governmental body, Executive promises, to the extent permissible by law, to (a) notify Company immediately of the existence, terms and circumstances surrounding such request, (b) consult with Company on the advisability of taking legally available steps to resist or narrow such request, (c) if disclosure is required, furnish only such portion of the Confidential Information as Executive is legally compelled to disclose; and (e) exercise Executive's best efforts to obtain an order or other reliable assurance that confidential treatment will be accorded to the disclosed Confidential Information.

8. NONCOMPETITION.

A. Restricted Period. As used in this Agreement, the term "Restricted Period" means throughout the Employment Term and continuing until the end of the 18 month period following the date on which Executive's employment with Company is terminated for any reason (whether voluntary or involuntary).

B. Prohibition on Competition. Executive hereby covenants and agrees that, until the expiration of the Restricted Period, except for any activity identified on Exhibit A, Executive will not serve as an officer, director, employee, independent contractor, consultant or agent of, or have any ownership interest in, any business entity which engages in any activities anywhere in the world that are materially similar to or competitive with Company's pharmaceutical prodrug development and Commercialization (as defined below) activities in the fields of (i) opioid products for the treatment of pain, (ii) stimulant products for the treatment of ADHD, and/or (iii) such other products which Company is actively and demonstrably developing and/or Commercializing at the time Executive's employment is terminated. If a court of competent jurisdiction finds this non-competition provision invalid or unenforceable due to unreasonableness in time, geographic scope, or scope of Company's business, then Executive agrees that such court shall interpret and enforce this provision to the maximum extent that such court deems reasonable. For purposes of this Agreement, "Commercialize" or "Commercialization" means the sales and marketing phase with regard to a specific drug candidate in a specific country or region following the regulatory approval of said drug candidate in the applicable country or region.

C. Exceptions. Executive's ownership of less than 5% of the stock of a company that is competitive with the activities of Company as described in Section 8(B) and listed on a national securities exchange shall not be deemed to violate the prohibitions of Section 8(B). Also, Executive shall not be considered to have violated Section 8(B) with respect to the purchasing entity if there is a Sale and Executive becomes an employee, officer, director or shareholder of the purchasing entity.

9. NONSOLICITATION OF EMPLOYEES. Until the expiration of the Restricted Period, Executive shall not, directly or indirectly, either on Executive's own account or for any other person or entity: (a) employ, solicit, induce, advise, or otherwise convince, interfere with Company's employment of, or offer employment to, any employee of Company; (b) employ or otherwise interfere with Company's engagement with, or offer employment to, any consultant of Company; or (c) induce or attempt to induce any such employee or consultant to breach their employment agreement or relationship or consulting agreement or relationship with Company; provided, however, that Executive shall not be in breach of this provision if any such employee or consultant, without inducement or solicitation by Executive, applies for employment at Executive's subsequent employer in response to a general advertisement soliciting employment.

10. REASONABLENESS OF RESTRICTIONS; REMEDIES. Executive has carefully read and considered the restrictive covenants set forth in Sections 7 – 9 hereof, and understands Executive's obligations thereunder, the limitations such obligations will impose upon Executive after termination of Executive's employment with Company, and that the Restricted Period extends for 18 months after the termination of Executive's employment. Executive has had full opportunity to review with Executive's personal attorney this Agreement, including Sections 7 – 9, before executing the Agreement. Executive agrees that, as a result of Executive's position with Company, the length of the Restricted Period and each restriction set forth in Sections 7, 8 and 9 herein are (1) fair and reasonable, (2) reasonably required for the protection of the legitimate business interests and goodwill established by Company, and (3) not overly broad or unduly burdensome to Executive. Executive acknowledges that Executive's compliance with Executive's obligations and restrictive covenants set forth in this Agreement is necessary to protect the business and goodwill of Company. Executive agrees that Executive's breach of Executive's

obligations and/or restrictive covenants under this Agreement may irreparably and continually damage Company, for which money damages may not be adequate. Consequently, Executive agrees that in the event that Executive breaches or threatens to breach any of the covenants or agreements contained herein, Company shall be entitled to: (a) seek injunctive relief to prevent or halt Executive from breaching this Agreement; and (b) money damages as determined appropriate by a court of competent jurisdiction. Executive hereby agrees that injunctive relief may be granted by a court of competent jurisdiction without the necessity of Company to post bond, or if required to post bond, Executive agrees that the lowest amount permitted shall be adequate. Nothing in this Agreement shall be construed to prohibit Company from pursuing any other remedy available or from seeking to enforce any restrictive covenants to a lesser extent than set forth herein. The Parties agree that all remedies shall be cumulative. Each party is responsible for its own costs and expenses, including attorneys' fees.

11. NO PRIOR RESTRICTIONS. Executive hereby represents and warrants to Company that the execution, delivery, and performance by Executive of Executive's duties under this Agreement do not violate any provision of any agreement or restrictive covenant which Executive has with any former employer or any other entity. Executive further agrees to honor and inform Company of any and all post-employment obligations Executive has to any former employer or any other entity with which Executive has or had a business relationship.

12. NOTICES. Any notice or communication required or permitted to be given hereunder may be delivered by hand, deposited with an overnight courier, sent by confirmed email, confirmed facsimile, or mailed by registered or certified mail, return receipt requested, postage prepaid, in the case of Company, addressed to Company's principal office marked attention to Company's president, and in the case of Executive, addressed to Executive's personal address as appearing in Company's payroll records, and in each case to such other mail address, e-mail address, or facsimile number as may hereafter be furnished in writing by either Party to the other Party. Such notice will be deemed to have been given as of the date it is hand delivered, emailed, faxed or three days after deposit in the U.S. mail.

13. LIKENESS. Executive hereby grants to Company a license to use, without further compensation or approval from Executive, Executive's name, image, portrait, voice, likeness and all other rights of publicity, or any derivative or modification thereto that Company may create, in any and all mediums, now known or hereafter developed, provided that such use is in relation to Company's business and consistent with professional business standards, and does not disparage or denigrate Executive. Provided, however, if written notice is provided to Company by Executive following termination of Executive's employment requesting that Company cease using Executive's likeness, Company has 30 days to cease using Executive's likeness in the manner set forth in the notice.

14. SECTION 409A; SECTION 162(M).

A. This Agreement is intended to comply with Section 409A of the Code and its corresponding regulations, or an exemption, and payments may only be made under this Agreement upon an event and in a manner permitted by Section 409A of the Code, to the extent applicable. Severance benefits under the Agreement are intended to be exempt from Section 409A of the Code under the "short-term deferral" exception, to the maximum extent applicable, and then under the "separation pay" exception, to the maximum extent applicable. Notwithstanding anything in this Agreement to the contrary, if required by Section 409A of the Code, if Executive is considered a "specified employee" for purposes of Section 409A and if payment of any amounts under this Agreement is required to be delayed for a period of six months after separation from service pursuant to Section 409A of the Code, payment of such amounts shall be delayed as required by Section 409A of the Code, and the accumulated amounts shall be paid in a lump sum payment within 10 days after the end of the six month period. If Executive dies during the postponement period prior to the payment of benefits, the amounts withheld on account of Section 409A of the Code shall be paid to the personal representative

of Executive's estate within 60 days after the day of Executive's death. The Parties agree that this Section 14 shall not be construed in a manner so as to accelerate any payments due under this Agreement.

B. All payments to be made upon a termination of employment under this Agreement may only be made upon a "separation from service" under Section 409A of the Code. For purposes of Section 409A of the Code, each payment hereunder shall be treated as a separate payment and the right to a series of installment payments under this Agreement shall be treated as a right to a series of separate payments. In no event may Executive, directly or indirectly, designate the calendar year of a payment. All reimbursements and in-kind benefits provided under the Agreement shall be made or provided in accordance with the requirements of Section 409A of the Code.

C. Executive agrees that if the stock of the Company becomes publicly traded, Executive will make any amendments to the Agreement that the Company deems necessary to allow performance-based compensation to qualify for the "qualified performance-based compensation" exception to Section 162(m) of the Code.

15. ATTORNEYS' FEES FOR NEGOTIATION OF THIS AGREEMENT. Company shall pay for the reasonable attorneys' fees incurred by Executive in connection with the review, negotiation and documentation of this Agreement, up to a maximum of $3,000 in the aggregate.

16. INDEMNIFICATION; LIABILITY INSURANCE. Company shall indemnify and hold Executive harmless to the fullest extent permitted by the laws of Company's state of organization or incorporation in effect at the time against and in respect of any and all actions, suits, proceedings, claims, demands, judgments, costs, expenses (including advancement of reasonable attorney's fees), losses, and damages resulting from Executive's performance of Executive's duties and obligations with Company. Executive will be entitled to be covered, both during and, while potential liability exists, by any insurance policies the Employer may elect to maintain generally for the benefit of officers and directors of the Employer against all costs, charges and expenses incurred in connection with any action, suit or proceeding to which Executive may be made a party by reason of being an officer or director of Company in the same amount and to the same extent as Company covers its other officers and directors. These obligations shall survive the termination of Executive's employment with Company.

17. GENERAL PROVISIONS.

A. Successors and Assigns. The rights and obligations under this Agreement shall survive the termination of Executive's services to Company in any capacity and shall inure to the benefit and shall be binding upon Executive's heirs and personal representatives. Executive's duties and obligations are personal in nature and Executive may not assign or delegate any duties under this Agreement without Company's prior written approval. Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation, reorganization or otherwise) to all or substantially all of the business or assets of Company, within 15 days of such succession, expressly to assume and agree to perform this Agreement in the same manner and to the same extent as Company would be required to perform if no such succession had taken place and Executive acknowledges that in such event the obligations of Executive hereunder will continue to apply in favor of the successor. As used in this Agreement, "Company" shall mean Company and any such successor which assumes and agrees to perform the duties and obligations of Company under this Agreement by operation of law or otherwise.

B. Survival of Certain Terms. The terms, conditions and covenants set forth in this Agreement which specifically relate to periods, activities or obligations upon or subsequent to the termination of Executive's employment, including, without limitation, the restrictive covenants contained in Sections 7 – 9, shall survive the termination of this Agreement and Company's employment of Executive hereunder, and the Parties shall remain bound by such terms, conditions and covenants.

C. Governing Law; Jurisdiction. This Agreement shall be governed by and construed and enforced in accordance with the procedural and substantive laws of the State of Iowa, without regard to its conflicts of laws provisions. The litigation of any disputes arising out of this Agreement shall take place in the appropriate federal or state court located in Johnson County, Iowa. The parties, to the extent they can legally do so, hereby consent to service of process, and to be sued in the State of Iowa and consent to the exclusive jurisdiction of the courts of the State of Iowa and the United States District Court for the Southern District of Iowa, as well as to the jurisdiction of all courts to which an appeal may be taken from such courts, for the purpose of any suit, action or other proceeding arising out of any of their obligations hereunder or with respect to the transactions contemplated hereby, and expressly waive any and all objections they may have to venue in such courts. Notwithstanding the foregoing, should Executive refuse to comply with an order or judgment of such court, then Company may enforce this Agreement and the order or judgment of such court in any jurisdiction it deems appropriate.

D. Severability, Reform. If any provision of this Agreement is determined to be void, invalid or unenforceable, the remainder shall be unaffected and shall be enforceable as if the void, invalid or unenforceable part was not a provision of the Agreement.

E. Entire Agreement. This Agreement and its attached exhibits, which by this reference are hereby incorporated into and made a part of this Agreement as if set forth herein verbatim, contain the entire understanding of the parties to this Agreement and supersede and replace all former agreements or understandings, oral or written, between Company and Executive, including any offer letter sent to Executive, regarding the subject matter hereof.

F. Modification and Waiver. This Agreement may not be amended except by a written instrument signed by both Parties which specifically refers to the particular provision or provisions being amended. No provision of this Agreement may be waived except in a written instrument that specifically refers to the particular provision or provisions being waived and is signed by the Party against whom the waiver is being asserted. No waiver by any Party of any right, power or privilege hereunder shall constitute a waiver of any other right, power or privilege hereunder, and no waiver by any party of any breach of a provision hereunder shall constitute a waiver of any other breach of that or any other provision of this Agreement.

G. Taxes; Withholding. All compensation and benefits payable to Executive under this Agreement shall be subject to all income and other employment tax withholding and reporting required by federal, state or local law with respect to compensation, benefits and reimbursable expenses paid by a corporation to an employee. Executive shall be responsible for all taxes applicable to amounts payable under this Agreement.

H. Assistance in Litigation. Executive shall reasonably cooperate with Company in the defense or prosecution of any claims or actions now in existence or that may be brought in the future against or on behalf of Company that relate to events or occurrences that transpired while Executive was employed by Company. Executive's cooperation in connection with such claims or actions shall include being available to meet with counsel to prepare for discovery or trial and to act as a witness on behalf of Company at mutually convenient times. Executive also shall cooperate fully with Company in connection with any investigation or review by any federal, state or local regulatory authority as any such investigation or review relates, to events or occurrences that transpired while Executive was employed by Company. Notwithstanding anything to the contrary in this Section 17(H), unless otherwise mutually agreed between Executive and Company in writing and, for each

day that Executive performs services under this Section 17(H) Executive shall be reimbursed for his reasonable out-of-pocket expenses and, after the final payment by Company of any and all severance compensation due to Executive under Section 4(E), Company shall pay Executive a per diem cash amount at Executive's Base Salary rate on the Date of Termination.

I. Beneficiaries; References. Executive shall be entitled to select (and change to the extent permitted under any applicable law) a beneficiary or beneficiaries to receive any compensation or benefit payable hereunder following Executive's death, and may change such election, in either case by giving Company written notice thereof. In the event of Executive's death or a judicial determination of Executive's incompetence, reference in this Agreement to Executive shall be deemed, where appropriate, to refer to Executive's beneficiary, estate or other legal representative. Any reference to any gender in this Agreement shall include, where appropriate, the other gender.

J. Voluntary Agreement. Each Party to this Agreement has read and fully understands the terms and provisions hereof, has had an opportunity to review this Agreement with legal counsel, has executed this Agreement based upon such party's own judgment and advice of counsel, and knowingly, voluntarily and without duress, agrees to all of the terms set forth in this Agreement. The Parties have participated jointly in the negotiation and drafting of this Agreement. If an ambiguity or question of intent or interpretation arises, this Agreement will be construed as if drafted jointly by the Parties and no presumption or burden of proof will arise favoring or disfavoring any party because of authorship of any provision of this Agreement. Except as expressly set forth in this Agreement, neither the Parties nor their affiliates, advisors and/or their attorneys have made any representation or warranty, express or implied, at law or in equity with respect of the subject matter contained herein. Without limiting the generality of the previous sentence, Company, its affiliates, advisors and/or attorneys have made no representation or warranty to Executive concerning the state or federal tax consequences to Executive regarding the transactions contemplated by this Agreement.

K. Effect of Headings. Headings to sections and paragraphs of this Agreement are for reference only, and do not form a part of this Agreement, or effect the interpretation of this Agreement.

L. Counterparts. This Agreement may be executed in counterparts, including by transmission of facsimile or PDF copies of signature pages, each of which shall for all purposes are deemed to be an original and all of which shall constitute on instrument. All signatures of the parties transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

[SIGNATURE PAGE FOLLOWS]

SIGNATURE PAGE
OF
EMPLOYMENT AGREEMENT

IN WITNESS WHEREOF, Company has caused this Agreement to be duly executed and delivered by its duly authorized officer, and Executive has duly executed and delivered this Agreement, as of the date first written on page 1 of this Agreement.

KEMPHARM, INC. ("COMPANY"):

By: /s/ Dan Thompson

Dan Thompson
Chair, Compensation Committee
of the Board of Directors

TRAVIS C. MICKLE:

/s/ Travis C. Mickle

EXHIBIT A
LIST OF OUTSIDE BUSINESS ACTIVITIES

1. Perform consulting services pursuant to that certain consulting agreement between Shire Pharmaceuticals LLC and Travis Mickle dated December 17, 2012, which consulting services are provided through Mickle Investments, LLC (dba Mickle Consulting, LLC for purposes of these services), which entity is jointly owned by Travis and Christal Mickle.

EXHIBIT B
RELEASE OF CLAIMS

Separation of Employment Agreement and General Release

THIS SEPARATION OF EMPLOYMENT AGREEMENT AND GENERAL RELEASE (the "Agreement") is made as of this day of , , by and between Travis Mickle ("Executive") and KemPharm, Inc. (the "Company").

WHEREAS, Executive is employed by Company as President and Chief Executive Officer;

WHEREAS, Executive and Company entered into an Employment Agreement, dated May 30, 2014, (the "Employment Agreement") which provides for certain benefits in the event that Executive's employment is terminated on account of a reason set forth in the Employment Agreement;

WHEREAS, Executive's employment with Company will terminate effective (the "Termination Date"); and

WHEREAS, in connection with the termination of Executive's employment, the parties have agreed to a separation package and the resolution of any and all disputes between them.

NOW, THEREFORE, IT IS HEREBY AGREED by and between Executive and Company as follows:

1. Executive, for and in consideration of the commitments of Company as set forth in paragraph 6 of this Agreement, and intending to be legally bound, does hereby REMISE, RELEASE AND FOREVER DISCHARGE Company, its stockholders, its present and past affiliates, subsidiaries and parents, their respective officers, directors, investors, employees, and agents, and their respective predecessors, successors and assigns, heirs, executors, and administrators (collectively, "Releasees"), subject to the exceptions of Section 2 of the Agreement, from all causes of action, suits, debts, claims and demands whatsoever in law or in equity, which Executive ever had, now has, or hereafter may have, whether known or unknown, or which Executive's heirs, executors, or administrators may have, by reason of any matter, cause or thing whatsoever, from the beginning of time to the date of this Agreement, to the extent arising from or relating in any way to Executive's employment relationship with Company, the terms and conditions of that employment relationship, and/or the termination of that employment relationship, including, but not limited to, (i) any claims for monetary damages arising under the Age Discrimination in Employment Act ("ADEA"), the Older Workers Benefit Protection Act ("OWBPA"), Title VII of The Civil Rights Act of 1964, the Americans with Disabilities Act; (ii) any and all claims arising under the Family and Medical Leave Act of 1993, the Employee Retirement Income Security Act of 1974, as amended; (iii) any and all claims arising under any applicable state and local fair employment practice laws and wage and hour laws; (iv) any other claims under any federal, state or local common law, statutory, or regulatory provision, now or hereafter recognized; and (v) any claims for attorneys' fees and costs.

2. The foregoing shall in no event apply to (i) enforcement by Executive of Executive's rights under this Agreement, (ii) Executive's rights as a stockholder in Company or any of its affiliates, (iii) Executive's rights to indemnifications under any separate contract or insurance policy, (iv) Executive's right to seek unemployment insurance benefits, (v) Executive's right to seek workers' compensation benefits, (vi) any rights Executive has to indemnification for service as an officer of Company, or (vii) any claims that, as a matter of applicable law, are not waivable. This Agreement is effective without regard to the legal nature of the claims raised and without regard to whether any such claims are based upon tort, equity, implied or express contract or discrimination of any sort.

Executive and Company agree that nothing in this Agreement prevents or prohibits Executive from (i) making any disclosure of relevant and necessary information or documents in connection with any charge, action, investigation, or proceeding relating to this Agreement, or as required by law or legal process; (ii) participating, cooperating, or testifying in any charge, action, investigation, or proceeding with, or providing information to, any self-regulatory organization, governmental agency or legislative body, and/or pursuant to the Sarbanes-Oxley Act, (iii) filing, testifying, participating in or otherwise assisting in a proceeding relating to an alleged violation of any federal, state or municipal law relating to fraud, or any rule or regulation of the Securities and Exchange Commission or any self-regulatory organization or (iv) challenging the knowing and voluntary nature of the release of ADEA claims pursuant to the OWBPA. To the extent permitted by law, upon receipt of any subpoena, court order or other legal process compelling the disclosure of any such information or documents, Executive agrees to give prompt written notice to Company so as to permit Company to protect its interests in confidentiality to the fullest extent possible. To the fullest extent provided by law, Executive acknowledges and agrees, however, Executive is waiving any right to recover monetary damages in connection with any such charge, action, investigation or proceeding. To the extent Executive receives any monetary relief in connection with any such charge, action, investigation or proceeding, Company will be entitled to an offset for the benefits made pursuant to this Agreement, to the fullest extent provided by law.

Executive and Company further agree that the Equal Employment Opportunity Commission ("EEOC") and comparable state or local agencies have the authority to carry out their statutory duties by investigating charges, issuing determinations, and filing lawsuits in Federal or state court in their own name, or taking any action authorized by the EEOC or comparable state or local agencies. Executive retains the right to participate in any such action and to seek any appropriate non-monetary relief. Executive retains the right to communicate with the EEOC and comparable state or local agencies and such communication can be initiated by Executive or in response to the government and such right is not limited by any non-disparagement claims. Executive and Company agree that communication with employees plays a critical role in the EEOC's enforcement process because employees inform the agency of employer practices that might violate the law. For this reason, the right to communicate with the EEOC is a right that is protected by federal law and this Agreement does not prohibit or interfere with those rights. Notwithstanding the foregoing, Executive agrees to waive Executive's right to recover monetary damages in any charge, complaint or lawsuit filed by Executive or by anyone else on Executive's behalf.

3. In consideration of Executive's agreement to comply with the covenants described in Section 6-10 of the Employment Agreement, Company agrees as set forth in paragraph 6 herein.

4. Executive further agrees and recognizes that Executive has permanently and irrevocably severed Executive's employment relationship with Company, that Executive shall not seek employment with Company or any affiliated entity at any time in the future, and that neither Company nor any affiliate has any obligation to employ Executive in the future.

5. Executive agrees that Executive will not disparage or subvert Company or the Releasees, or make any statement reflecting negatively on Company or the Releasees, including, but not limited to, any matters relating to the operation or management of Company, Executive's employment and the termination of Executive's employment, irrespective of the truthfulness or falsity of such statement.

6. In consideration for Executive's agreement as set forth herein, Company agrees to pay and provide Executive with the severance benefits described in Section 4(E)(1) of Executive's Employment

Agreement. Executive agrees that Executive is not entitled to any payments, benefits, severance payments or other compensation beyond that expressly provided in Section 4(E)(1) of Executive's Employment Agreement and the Accrued Benefits (as defined in Section 4(B) of the Employment Agreement).

7. Executive understands and agrees that the payments, benefits and agreements provided in this Agreement are being provided to Executive in consideration for Executive's acceptance and execution of, and in reliance upon Executive's representations in, this Agreement. Executive acknowledges that if Executive had not executed this Agreement containing a release of all claims against Company and the Releasees, Executive would only have been entitled to the payments provided in Company's standard severance pay plan for employees.

8. Executive acknowledges and agrees that Company previously has satisfied any and all obligations owed to Executive under any employment agreement or offer letter Executive has with Company or a Releasee and, further, that this Agreement supersedes any and all prior agreements or understandings, whether written or oral, between the parties, excluding only Executive's and Company's post-termination obligations under Executive's Employment Agreement, Executive's rights under any outstanding equity grants in accordance with the terms of the applicable grant agreements, any obligations relating to the securities of Company or any of its affiliates and Company's obligations under Section 4(E)(1) of Executive's Employment Agreement and to pay or provide the Accrued Benefits (as defined in Section 4(B) of the Employment Agreement), all of which shall remain in full force and effect to the extent not inconsistent with this Agreement, and further, that, except as set forth expressly herein, no promises or representations have been made to Executive in connection with the termination of Executive's Employment Agreement or the terms of this Agreement.

9. Except as may be necessary to obtain approval or authorization to fulfill Executive's or its obligations hereunder or as required by applicable law and subject to the exceptions of Section 2 of the Agreement, (a) Executive agrees not to disclose the terms of this Agreement to anyone, except Executive's spouse, attorney and, as necessary, tax/financial advisor, and (b) Company agrees that the terms of this Agreement will not be disclosed. It is expressly understood that any violation of the confidentiality obligation imposed hereunder constitutes a material breach of this Agreement.

10. Executive represents that Executive does not presently have in Executive's possession any records and business documents, whether on computer or hard copy, and other materials (including but not limited to computer disks and tapes, computer programs and software, office keys, correspondence, files, customer lists, technical information, customer information, pricing information, business strategies and plans, sales records and all copies thereof) (collectively, the "Corporate Records") provided by Company and/or its predecessors, parents, subsidiaries or affiliates or obtained as a result of Executive's employment with Company and/or its predecessors, parents, subsidiaries or affiliates, or created by Executive while employed by or rendering services to Company and/or its predecessors, parents, subsidiaries or affiliates. Executive acknowledges that all such Corporate Records are the property of Company. In addition, Executive shall promptly return in good condition any and all Company owned equipment or property, including, but not limited to, automobiles, personal data assistants, facsimile machines, copy machines, pagers, credit cards, cellular telephone equipment, business cards, laptops and computers. As of the Termination Date, Company will make arrangements to remove, terminate or transfer any and all business communication lines including network access, cellular phone, fax line and other business numbers.

11. Subject to the exceptions of Section 2 of the Agreement, Executive expressly waives all rights afforded by any statute which expressly limits the effect of a release with respect to unknown claims. Executive acknowledges the significance of this release of unknown claims and the waiver of

statutory protection against a release of unknown claims which provides that a general release does not extend to claims which the creditor does not know or suspect to exist in Executive's favor at the time of executing the release, which if known by it must have materially affected its settlement with the debtor.

12. The parties agree and acknowledge that the agreements by Company described herein, and the settlement and termination of any asserted or unasserted claims against the Releasees, are not and shall not be construed to be an admission of any violation of any federal, state or local statute or regulation, or of any duty owed by any of the Releasees to Executive.

13. Executive agrees and recognizes that should Executive breach any of the obligations or covenants set forth in this Agreement, Company will have no further obligation to provide Executive with the consideration set forth herein, and will have the right to seek repayment of all consideration paid up to the time of any such breach. Further, Executive acknowledges in the event of a breach of this Agreement, Releasees may seek any and all appropriate relief for any such breach, including equitable relief and/or money damages.

14. This Agreement and the obligations of the parties hereunder shall be construed, interpreted and enforced in accordance with the laws of the State of Iowa.

15. Executive certifies and acknowledges as follows:

(a) That Executive has read the terms of this Agreement, and that Executive understands its terms and effects, including the fact that Executive has agreed to RELEASE AND FOREVER DISCHARGE Company and each of the Releasees from any legal action arising out of Executive's employment relationship with Company and the termination of that employment relationship;

(b) That Executive has signed this Agreement voluntarily and knowingly in exchange for the consideration described herein, which Executive acknowledges is adequate and satisfactory to Executive and which Executive acknowledges is in addition to any other benefits to which Executive is otherwise entitled;

(c) That Executive has been and is hereby advised in writing to consult with an attorney prior to signing this Agreement;

(d) That Executive does not waive rights or claims that may arise after the date this Agreement is executed;

(e) That Company has provided Executive with a period of [**twenty-one (21)**] or [**forty-five (45)**] days within which to consider this Agreement, and that Executive has signed on the date indicated below after concluding that this Separation of Employment Agreement and General Release is satisfactory to Executive; and

[***Note: The applicable time period will depend on whether the termination is part of a reduction in force (45 days) or not (21 days). In addition, if the termination is in connection with a reduction in force, certain disclosures will need to be made to Executive to comply with the requirements of the ADEA if Executive is at least age 40.***]

(f) Executive acknowledges that this Agreement may be revoked by Executive within seven (7) days after execution, and it shall not become effective until the expiration of such seven (7) day revocation period. In the event of a timely revocation by Executive, this Agreement will be deemed null and void and Company will have no obligations hereunder. Revocation may be achieved only by delivering a letter to **[NAME, TITLE, ADDRESS]**, clearly evidencing a decision to revoke within the seven day revocation period.

Intending to be legally bound hereby, Executive and Company executed the foregoing Separation of Employment Agreement and General Release this day of , .

Witness: _____

Travis Mickle

KEMPHARM, INC.

By: _____ Witness: _____

Name:

Title:

EXHIBIT 10.20

Execution Version

KEMPHARM, INC.

EMPLOYMENT AGREEMENT
CHRISTAL MICKLE
DATED MAY 30, 2014

KEMPHARM, INC.
EMPLOYMENT AGREEMENT

This EMPLOYMENT AGREEMENT ("Agreement") is made and entered into effective as of the 30th day of May 2014, by and between KEMPHARM, INC., an Iowa corporation (the "Company") and CHRISTAL MICKLE ("Executive") (each being a "Party" hereto and together constituting the "Parties").

WHEREAS, Executive is currently employed by Company as its Vice President of Operations and Product Development and Company desires to continue to employ Executive in such capacity under the terms and conditions set forth below.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, and for other good and valuable consideration, the receipt, adequacy and sufficiency of which is hereby acknowledged, the Parties hereto agree as follows:

1. EMPLOYMENT.

A. Employment. Company hereby continues to employ Executive and Executive hereby accepts such continued employment with Company as Vice President of Operations and Product Development, or in such other capacities as Company shall reasonably determine from time to time, upon the terms and conditions set forth in this Agreement.

B. Effective Date and Term. Company's continued employment of Executive under this Agreement shall commence effective as of May 30, 2014 (the "Effective Date"), and continue until the Date of Termination (defined in Section 4(A)) (hereinafter such period of time from the commencement until termination of employment shall be referred to as the "Employment Term").

C. Duties of Executive. During the Employment Term, all of the following shall apply: Executive shall carry out, perform and comply with such reasonable and lawful orders, directions, and written rules and policies (including those rules and policies memorialized in meeting minutes) as are assigned or set by Company's Chief Executive Officer (the "CEO") from time to time. Executive shall report to, receive directions from and be reviewed by the CEO. Executive's duties shall include the duties and responsibilities commonly associated with a Vice President of Operations and Product Development of a company similar to Company. Subject to the limitations of Section 4(E)(3)(iv), the CEO retains the right to modify Executive's job title and responsibilities pursuant to the legitimate business needs of Company.

D. Duty of Loyalty. During the Employment Term, Executive shall not, without the prior written consent of the CEO, accept other employment or render or perform other services for compensation. Executive shall devote Executive's full business time and attention and Executive's best efforts to the faithful performance of Executive's duties as an executive officer and employee of Company. Executive's expenditure of reasonable amounts of time for teaching, personal business, or on behalf of charitable or professional organizations shall not be deemed a breach of this Agreement, provided such activities do not materially interfere with the performance of Executive's duties and responsibilities hereunder.

E. Place of Performance. Executive's principal place of employment during the Employment Term will be Company's headquarters in Coralville, Iowa; provided that, from time to time, Executive will perform her duties from Executive's personal residence or a Company worksite in the Orlando, Florida metropolitan area. Notwithstanding the foregoing, Executive understands and agrees that Executive's presence may be required at Company headquarters or other Company worksite, or Executive may be required to travel for business, in each case, in accordance with Executive's duties and responsibilities under this Agreement, as business needs require or may change over time and as reasonably requested by the CEO.

2. COMPENSATION AND BENEFITS. In consideration of the services to be rendered by Executive pursuant to this Agreement, as well as Executive's covenants set forth in this Agreement, Company shall pay to Executive the following compensation, which shall be the entire and exclusive compensation for all of Executive's services rendered and other obligations taken on Company's behalf:

A. Annual Base Salary. During the Employment Term, Company shall pay to Executive an annualized base salary of $141,795 (the "Base Salary"), provided that the Base Salary will be increased automatically to $190,000 upon the successful closing of the debt financing between Company and affiliates of Deerfield Management Company, L.P., which is expected to be in an amount of up to $60,000,000, which financing is expected to close on or around May 30, 2014 (the "Financing"). For calendar years in which Executive is employed for less than the full year, the Base Salary shall be prorated and accrue on a per diem basis for only those days on which Executive was employed during the Employment Term. The Base Salary will be paid by Company in equal installments according to Company's customary payroll practices, but in any event not less frequently than monthly, and shall be subject to all mandatory and voluntary payroll deductions. Executive's Base Salary shall be reviewed periodically by the Company's Board of Directors ("Board of Directors") or the Compensation Committee of the Board of Directors (the "Compensation Committee") if so designated and may be appropriately increased from time to time in the sole discretion of Board of Directors or the Compensation Committee, as applicable, and may only be decreased proportionately with any across-the-board decrease applicable to all senior executives of Company.

B. Incentive Compensation. During the Employment Term, Executive shall be entitled to participate in all short-term and long-term incentive programs established by Company, at such levels as the Board of Directors or Compensation Committee determines. Executive's annual short-term incentive opportunity target shall be no less than 25% of the Base Salary, as such percentage may be increased from time to time (the "Target Annual Bonus"). The actual amount of such annual incentive compensation shall be determined in accordance with the applicable plans based on achievement of individual and Company performance objectives established in advance by the Board of Directors or the Compensation Committee, taking into account input from the CEO, and such actual annual short term incentive compensation amount may be more or less than the target amount. No minimum incentive is guaranteed.

C. Retirement, Welfare and Other Benefit Plans and Programs. During the Employment Term, Executive shall be entitled to participate in the employee retirement and welfare benefit plans and programs made available to Company's other senior level executives as a group, as such retirement and welfare plans may be in effect from time to time and subject to the eligibility requirements of such plans, including but not limited to, life, health and disability plans, and a 401(k) retirement plan and similar or other plans. During the Employment Term, Executive shall be eligible for vacation, sick leave and holidays in accordance with Company's vacation, sick and holiday and other pay for time not worked policies. Nothing in this Agreement or otherwise shall prevent Company from amending or terminating after the Effective Date any retirement, welfare or other employee benefit plans, programs, policies or perquisites from time to time as Company deems appropriate, and Executive's participation in any such plan, program, policy and perquisite shall be subject to the terms, provisions, rules and regulations thereof.

D. Reimbursement of Expenses. During the Employment Term, Company shall reimburse Executive for all reasonable and necessary business expenses that Executive incurs while performing Executive's duties under this Agreement in accordance with Company's general policies of expense reimbursement in effect from time to time.

3. COMPANY POLICIES AND PROCEDURES. Executive agrees to observe and comply with the reasonable and lawful policies and procedures of Company as adopted by the Board of Directors in writing or reflected in the formal minutes of the Board of Directors or committee thereof, respecting performance of Executive's duties and to carry out and to perform the reasonable and lawful orders and directions stated by Company to Executive, from time to time, either orally or in writing. Executive agrees that Executive will be subject to any compensation clawback, recoupment and anti-hedging policies that may be applicable to Executive as an executive of Company, as in effect from time to time and as approved by the Board of Directors or a duly authorized committee thereof.

4. TERMINATION.

A. Notice of Termination and Date of Termination. Each Party must give written notice to the other of the intent to terminate this Agreement and Executive's employment hereunder ("Notice of Termination"). The Notice of Termination must specify a date of termination of employment, which shall incorporate any period of notice required by this Section 4 ("Date of Termination").

B. Executive's Death or Total Disability. Executive's employment under this Agreement shall terminate upon the date of Executive's death. Additionally, if, during the Employment Term, Executive suffers a Total Disability (as defined in Section 4(E)(3)(iii), then Company may terminate Executive's employment under this Agreement by giving Executive a Notice of Termination specifying the Date of Termination. Upon such termination due to death or Total Disability, Company shall pay to Executive or Executive's estate (i) any Base Salary that has fully accrued but not been paid as of the effective date of such termination, as well as any vested and accrued employment benefits subject to the terms of any applicable employment benefit arrangements and applicable law ("Accrued Benefits") and (ii) a prorated bonus for the year in which Executive's death or Disability occurs, which bonus shall be calculated and paid in the same manner as set forth below in Section 4(E)(1)(b). All other rights and benefits of Executive and Executive's dependents hereunder shall terminate upon such termination, except for any right to the continuation of benefits otherwise provided by law.

C. By Company with Cause. Company may terminate with Cause (as defined in Section 4(E)(3)(i)) Executive's employment hereunder at any time. In order to terminate Executive's employment hereunder with Cause, Company must give Notice of Termination to Executive specifying the Cause and the Date of Termination, which may be the same date as the date of the Notice of Termination. Upon termination with Cause, Company shall pay to Executive all Accrued Benefits. All other rights and benefits of Executive hereunder shall terminate upon such termination, except for any right to the continuation of benefits otherwise provided by law.

D. By Executive without Good Reason or by Mutual Agreement. Executive may terminate Executive's employment without Good Reason (as defined in Section 4(E)(3)(iv) at any time by giving Company Notice of Termination at least 30 days prior to the Date of Termination designated by Executive. In addition, this Agreement may be terminated at any time by written mutual agreement of the Parties with or without notice. Upon termination of Executive's employment by Executive without Good Reason or termination by mutual agreement of the parties, Company shall pay to Executive all Accrued Benefits. All other rights and benefits of Executive hereunder shall terminate upon such termination, except for any right to the continuation of benefits otherwise provided by law.

E. Without Cause by Company or For Good Reason by Executive. Company may terminate Executive's employment at any time without Cause (as defined in Section 4(E)(3)(ii)) by giving Executive a Notice of Termination at least one day prior to the Date of Termination**,** and Executive may terminate Executive's employment for Good Reason by giving Company a Notice of Termination in accordance with Section 4(E)(3)(iv) below. Upon termination of Executive's employment without Cause by Company or for Good Reason by Executive, Company will pay Executive (i) all Accrued Benefits, (ii) the severance compensation payable set forth below in this Section 4(E), if Executive executes and does not revoke a Release (as defined in Section 4(E)(3)(v). All other rights and benefits of Executive hereunder shall terminate upon such termination, except for any right to the continuation of benefits otherwise provided by law.

(1) In the event that Company terminates Executive's employment without Cause or Executive terminates Executive's employment for Good Reason, and Executive executes and does not revoke a Release, then Company shall pay to Executive as severance compensation, the following:

(a) Executive's Base Salary (at the rate payable at the time of such termination) for a period of 12 months following the Date of Termination. Such severance compensation shall be paid by Company in equal installments according to Company's customary payroll practices, with the first payment made on the first regularly scheduled pay day immediately following the 60th day following the Date of Termination; provided, however, that if such termination of employment occurs within 60 days before, upon or within one year following a Sale (as defined in Section 4(E)(3)(vi)), then Company shall pay such amount in a lump sum on the first regularly scheduled pay day immediately following the 60th day following the Date of Termination, but (i) the amount will only be paid in a lump sum if the Sale constitutes a "change in control event" as defined under Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"); and (ii) notwithstanding the preceding clause (i), if the Sale is not a "change in control event" as defined under Section 409A of the Code and penalty taxes may result under Section 409A of the Code if such severance compensation is paid in a lump sum, then the severance compensation will be paid in equal installments according to Company's customary payroll practices, with the first payment made on the first regularly scheduled pay day immediately following the 60th day following the Date of Termination.

(b) To the extent Executive has an annual incentive compensation award for the year of termination in which the Date of Termination occurs, Executive shall receive a pro rata Target Annual Bonus award payment for the year in which the Date of Termination occurs (measured at the target level, identified "goal" target or other similar target, without taking into account any incentive override for above goal performance, or any project-specific or other non-standard incentives), which shall be paid on the first regularly scheduled pay day immediately following the 60th day following the Date of Termination. The pro rata amount shall be determined as the Target Annual Bonus in effect for the year in which the Date of Termination occurs, multiplied by a fraction, the numerator of which is the number of days in which Executive was employed by Company during the year in which the Date of Termination occurs, including the Date of Termination, and the denominator of which is 365.

(c) During the 12 month period following the Date of Termination, if Executive timely elects continued coverage under Section 4980B of the Code ("COBRA"), Company will reimburse Executive for the monthly COBRA cost of continued health coverage under the health plans of Company paid by Executive for Executive, and, if applicable, Executive's spouse and dependents, less the amount that Executive would be required to contribute for health coverage if Executive were an active employee of Company; provided that such reimbursements shall not continue beyond the first to occur of (x) the date on which

Executive fails to pay the COBRA cost of continuation coverage under the health plans of Company and (y) the date on which Executive is eligible for substantially similar coverage from a subsequent employer. These reimbursements will commence on the first regularly scheduled pay day immediately following the 60th day following the Date of Termination and will be paid on the first regularly scheduled pay day of each month, provided that Executive demonstrates proof of payment of the applicable premiums prior to the applicable reimbursement payment date.

(d) The vesting of each outstanding equity award granted to Executive will accelerate so that such awards will be fully vested as of the Date of Termination. If any equity awards vest based on the attainment of performance goals, the performance goals will be deemed to have met as of the Date of Termination, unless such greater amount of vesting is provided for in the applicable award agreements.

(2) Payment of the severance compensation shall be subject to all mandatory and voluntary payroll deductions. In the event that Executive materially breaches any of Executive's post-employment covenants or obligations set forth in this Agreement that the Board of Directors reasonably determines is not cured (to the extent the breach is curable as determined by the Board of Directors) within 15 days following written notice from Company, then the payment of severance compensation pursuant to this section shall terminate immediately and permanently. During the period that Executive is paid the foregoing severance compensation, Executive shall not further accrue any other benefits under any benefit plans of which Executive was a participant while employed by Company, except as otherwise required by applicable federal or state law, by the express terms of this Agreement, or by the express terms of such benefit plans; provided, however, that if Executive becomes entitled to and receives the payments described in Section 4(E)(1) of this Agreement, Executive hereby waives Executive's right to receive payments under any severance plan or similar program applicable to employees of Company.

(3) For purposes of this Agreement:

(i) Executive's employment will be deemed to have been terminated by Company "with Cause" if the termination arises from a determination by the Board of Directors that (a) Executive is convicted of (or pleads guilty or nolo contendere to) a crime constituting a misdemeanor involving dishonesty or moral turpitude or any crime constituting a felony; (b) Executive neglects, refuses or fails to perform Executive's material duties hereunder (other than a failure resulting from Executive's incapacity due to physical or mental illness); (c) Executive commits a material act of dishonesty or otherwise engages in or is guilty of gross negligence or willful misconduct in the performance of Executive's duties; or (d) Executive materially breaches the provisions of any written non-competition, non-disclosure or non-solicitation agreement, or any other agreement in effect with Company, including without limitation the provisions of Sections 7 – 9 of this Agreement or Company's applicable written code of business conduct and compliance policies; provided, however, Executive shall have 15 days following Company's provision of the Notice of Termination specifying a condition under clause (b), (c) or (d) constituting Cause to cure such condition (to the extent the condition is curable as reasonably determined by the Board of Directors), before which time a termination with Cause cannot be effective unless such condition remains uncured as reasonably determined by the Board of Directors.

(ii) Executive's employment shall be deemed to have been terminated by Company "without Cause" if such termination is not with "Cause," and such termination is not the result of Executive's death or Executive suffering a Total Disability.

(iii) Executive shall be deemed to have suffered a "Total Disability" if (a) Executive is granted long-term disability benefits under Company's long-term disability plan or (b) Executive becomes physically or mentally disabled so that Executive is unable to perform the essential functions of Executive's job, with or without reasonable accommodation in accordance with the Americans with Disabilities Act and its amendments, for a period of 180 consecutive days.

(iv) Executive shall be deemed to have terminated Executive's employment for "Good Reason" if Executive terminates Executive's employment on account of the occurrence of one or more of the following without Executive's consent:

(a) A material diminution by Company of Executive's authority, duties or responsibilities, other than a diminution of authority, duties or responsibilities during a 15-day cure period following Company's notice to Executive of a termination with Cause, temporarily while Executive is physically or mentally incapacitated, or otherwise as required by applicable law;

(b) A material change in the geographic location at which Executive must perform services under this Agreement (which, for purposes of this Agreement, means the requirement that Executive work from a location more than 50 miles from the Coralville, Iowa or Orlando, Florida or any other location at which Executive principally performs her duties immediately prior to the relocation);

(c) A material diminution in Executive's Base Salary which is not the result of an across-the-board reduction in base salaries of other senior executives of Company; or

(d) Any action or inaction that constitutes a material breach by Company of this Agreement, including the failure of Company to pay any amounts due under Section 2 or the failure of Company to obtain from its successors the express assumption and agreement required under Section 17(A).

Executive must provide Notice of Termination for Good Reason to Company within 60 days after the event constituting Good Reason. Company shall have a period of 30 days in which it may correct the act or failure to act that constitutes the grounds for Good Reason as set forth in Executive's Notice of Termination. If Company does not correct the act or failure to act, then, in order for the termination to be considered a Good Reason termination, Executive must terminate Executive's employment for Good Reason by giving Notice of Termination with a Date of Termination designated by Executive which is at least 30 days after the date on which the Notice of Termination is given but not more than 90 days after the end of the cure period.

(v) The term "Release" shall mean a release of claims approved by Company, which shall be in the form attached hereto as Exhibit B, subject to revision based on advice from Company counsel to comply with changes in applicable law.

(vi) The term "Sale" means the sale of more than 50% of the equity of Company, a merger of Company with an entity the equity of which after the merger the stockholders of Company immediately prior to such merger own less than 50%, or the sale of all or substantially all of the assets of Company, in any case to a person or entity not affiliated with Company. Neither a recapitalization nor change of form of Company shall be

considered a Sale. Additionally, a "Sale" shall not be deemed to have occurred as a result of a lender exercising any of its remedies in connection with the occurrence or continuation of an event of default under that certain Facility Agreement, to be dated as of or around May 30, 2014, by and between Company and Deerfield Private Design Fund III, L.P.

(4) In the event Company terminates Executive's employment with Cause, Executive voluntarily terminates Executive's employment with Company other than for Good Reason, or such employment is terminated by mutual agreement or as the result of Executive's death or Total Disability, Executive shall not be entitled to payment of any severance compensation under this Agreement and Executive shall not be entitled to receive severance benefits under any Company severance plan.

F. Cooperation after Notice of Termination. Following any Notice of Termination by either Company or Executive, Executive, if requested by Company, shall reasonably cooperate with Company in all matters relating to the winding up of Executive's pending work on behalf of Company and the orderly transfer of any such pending work to other employees of Company as may be reasonably designated by Company following the Notice of Termination. Executive shall not receive any additional compensation during the Employment Term, other than Executive's Base Salary, for any services that Executive renders as provided in this Section 4(F). For each day that Executive performs services under this Section 4(F) after the Employment Term, Executive shall be reimbursed for her reasonable out-of-pocket expenses and, after the final payment by Company of any and all severance compensation due to Executive under Section 4(E), Company shall pay Executive a per diem cash amount at Executive's Base Salary rate on the Date of Termination.

G. Surrender of Records and Property. Upon termination of employment, Executive shall promptly turn-over or deliver to Company at Company's expense all property of Company in Executive's possession, custody, or control, including without limitation thereto: records (paper and electronic), files (paper and electronic), documents (paper and electronic), electronic mail (e-mail) on Company accounts, letters, financial information, memorandum, notes, notebooks, contracts, project manuals, specifications, reports, data, tables, calculations, data, electronic information, and computer disks, in all cases whether or not such property constitutes Confidential Information (as defined below), and all copies thereof; all keys to motor vehicles, offices or other property of Company; and all computers, cellular phones and other property of Company. If any of the foregoing property of Company is electronically stored on a computer or other storage medium owned by Executive or a friend, family member or agent of Executive, such information shall be copied onto a computer disk to be delivered to Company together with a written statement of Executive that the information has been deleted from such person's computer or other storage medium.

H. Resignation from Boards. If Executive's employment with Company terminates with Cause, Executive shall immediately resign from all boards of directors of Company, any affiliates and any other entities for which Executive serves as a representative of Company. If Executive's employment is terminated for any other reason (other than death), Executive shall immediately resign from all boards of directors of Company, any affiliates and any other entities for which Executive serves as a representative of Company, if requested by the Board of Directors and consistent with the terms of the KemPharm, Inc. Voting Agreement dated on around the Effective Date (the "Voting Agreement"). To the extent Executive remains as a member of any boards of directors of Company, any affiliates and other entities following termination of employment (other than a termination of employment by Company with Cause), Executive shall remain on such boards for the remainder of the then current term and may be re-elected in accordance with the normal election procedures for the applicable board and consistent with the Voting Agreement**.**

5. SECTION 280G OF THE CODE.

A. Shareholder Approval, etc. At any time when Company is a corporation described in Section 280G(b)(5)(A)(ii)(I) of the Code, if a nationally recognized United States public accounting firm selected (and paid for) by Company (the "Accountant") determines that any payment or benefit (including any accelerated vesting of equity awards) made or provided, or to be made or provided, by Company (or any successor thereto or affiliate thereof) to or for the benefit of Executive, whether pursuant to the terms of this Agreement, any other agreement, plan, program or arrangement of or with Company (or any successor thereto or affiliate thereof) or otherwise in connection with, or arising out of, a change in ownership or an effective control of Company or of a substantial portion of assets (any such payment or benefit, a "Parachute Payment"), will be subject to the excise tax imposed by Section 4999 of the Code or any comparable tax imposed by any replacement or successor provision of United States tax law (the "Excise Tax"), if Executive waives Executive's right to receive all or a portion of the Parachute Payments unless such Parachute Payments are approved by the shareholders pursuant to Treas. Reg. Section 1.280G-1, Q&A-7, Company shall in good faith seek to obtain approval of payment of such waived Parachute Payments in accordance with the shareholder approval requirements described in Treas. Reg. Section 1.280G-1, Q&A-7.

B. Better Off. If, following the date when Company ceases to be corporation described in Section 280G(b)(5)(A)(ii)(I) of the Code, it is determined by the Accountant that Executive shall become entitled to a Parachute Payment, which Parachute Payment shall be subject to the Excise Tax, then Company shall cause to be determined, before any amounts of any Parachute Payment is paid to Executive, which of the following two alternative forms of payment would result in Executive, on an after-tax basis, retaining the greater amount of Parachute Payments, notwithstanding that all or a portion of the Parachute Payments may be subject to the Excise Tax: (a) payment in full of all Parachute Payments or (b) payment of only a part of the Parachute Payments so that Executive receives the largest payment possible without the imposition of the Excise Tax (a "Reduced Payment"). For purposes of this Section 5(B), the Accountant shall take into account all applicable federal, state and local income and employment taxes and the Excise Tax (all computed at Executive's actual marginal tax rate). If a Reduced Payment is made, (i) Executive shall have no rights to any additional payments and/or benefits constituting the Parachute Payments, and (ii) reduction in payments and/or benefits shall occur in the manner that results in the greatest economic benefit to Executive as determined in Section 5(C).

C. Method of Determination. One or more determinations (each a "Tax Determination") as to whether any of the Parachute Payments will be subject to the Excise Tax shall be made by the Accountant (with all costs related thereto paid by Company). For purposes of determining whether any of the Parachute Payments will be subject to the Excise Tax: (i) all of the Parachute Payments shall be treated as "parachute payments" (within the meaning of Section 280G of the Code) unless and to the extent that in the written advice of the Accountant, certain Payments should not constitute parachute payments, and (ii) all "excess parachute payments" (within the meaning of Section 280G of the Code) shall be treated as subject to the Excise Tax unless and only to the extent that the Accountant advises Company that such excess parachute payments are not subject to the Excise Tax.

6. INTELLECTUAL PROPERTY.

A. Work Product. During the Employment Term, Executive will be expected to perform duties which may lead to and include the discovery, creation, development, or expression of inventions, discoveries, developments, modifications, procedures, ideas, innovations, systems, programs, know-how, literary properties, chemical or biological data, computer software, improvements, processes, methods, formulas, systems, creative works and techniques (collectively, hereinafter "Work Product").

B. Assignment. Executive hereby assigns and transfers to Company, and agrees that Company shall be the sole owner of all Work Product conceived, developed or made by Executive (alone or with others), whether during working hours or at any other time, in whole or in part during Executive's employment with Company (including prior to, during and after the Employment Term), whether at the request or upon the suggestion of Company or otherwise, which are useful in, or directly or indirectly related to Company's business or any contemplated business of Company or which relate to, or are conceived, developed, or made in the course of, Executive's employment or which are developed or made from, or by reason of knowledge gained from, such employment.

C. Work for Hire. Executive hereby agrees that all work or other material containing or reflecting any Work Product shall be deemed a work made for hire under the U.S. Copyright Act. To the extent any such Work Product is determined that it is not a work made for hire, Executive hereby assigns to Company all of Executive's right, title and interest, including all rights of copyright, patent, trade secret and other intellectual property rights, in, to and under the Work Product.

D. Continuing Obligations. Executive agrees to disclose promptly all Work Product conceived or made by Executive (alone or with others) to which Company is entitled to as provided herein, and agrees not to disclose such Work Product to others except as required by law or as is reasonably necessary or appropriate in connection with the performance of Executive's duties as an employee and officer of Company, without the express written consent of Company. Executive further agrees that during the Employment Term and at any time thereafter, Executive will, upon request by Company, provide all assistance reasonably required to protect, perfect and use the Work Product, including execution of proper assignments to Company of any and all such Work Product to which Company is entitled, execution of all papers and performance all other lawful acts which Company may deem necessary or advisable for the preparation, prosecution, procurement and maintenance of trademarks, copyrights and or patent applications, and execution of any and all proper documents as shall be required or necessary to vest title in Company to such Work Product. It is understood that all expenses in connection with such trademarks, copyrights or patents, and all applications related thereto, shall be borne by Company, however Company is under no obligation to protect such Work Product, except at its own discretion and to such extent as Company shall deem desirable. Executive shall not receive any additional compensation during the Employment Term, other than Executive's Base Salary, for any services that Executive renders as herein provided. For each day that Executive performs services under this Section 6(D) after the Employment Term, Executive shall be reimbursed for her reasonable out-of-pocket expenses and, after the final payment by Company of any and all severance compensation due to Executive under Section 4(E), Company shall pay Executive a per diem cash amount at Executive's Base Salary rate on the Date of Termination.

7. CONFIDENTIAL INFORMATION.

A. Confidential Information. The term "Confidential Information" means all information related to Company's business, which exists or is developed at any time while Executive is an employee, officer and/or director of Company (including prior to, during and after the Employment Term), including without limitation: (i) strategic and development plans, financial information, equity investors, business plans, co-developer identities, business relationships, business records, project records, market reports, information relating to processes and techniques, technology, research, data, development, trade secrets, know-how, discoveries, ideas, concepts, specifications, diagrams, inventions, technical and statistical data, designs, drawings, models, flow charts, engineering, products, invention disclosures, patent applications, chemical and molecular structures, synthetic pathways, biological data, safety data, clinical data, developmental data, development route, manufacturing processes, synthetic techniques, analytical data, Work Product, and any and all other proprietary and sensitive information, disclosed or learned, whether oral, written, graphic or machine-readable, whether or not marked confidential or proprietary, whether or not patentable, whether or not

copyrightable, including the manner and results in which any such Confidential Information may be combined with other information or synthesized or used by Company, which could prove beneficial in enabling a competitor to compete with Company; or (ii) information that satisfies the definition of a "trade secret" as that term is defined in the Iowa Uniform Trade Secrets Act, IA Code Chpt. 550, as amended from time to time; provided, however, that information that is in the public domain (other than as a result of a breach by Executive of this Section 7), approved for release by Company, or lawfully obtained from a third party who is not known by Executive (after Executive's reasonable inquiry) to be bound by a confidentiality agreement with Company is not Confidential Information.

B. Acknowledgements. Executive acknowledges and agrees that: (1) Executive's position with Company is one of high trust and confidence, (2) the Confidential Information constitutes a valuable, special and unique asset which Company uses to obtain a competitive advantage over its competitors, (3) Executive's protection of such Confidential Information against unauthorized use or disclosure is critically important to Company in maintaining its competitive advantage, (4) all Confidential Information is the property of Company, and (5) Executive shall acquire no right, title or interest in, to or under any such Confidential Information.

C. Nondisclosure. Executive promises that Executive will never (before, during or after the Employment Term): (1) disclose any Confidential Information to any person other than (i) an officer or director of Company; or (ii) any other person who is bound by nondisclosure restrictive covenants to Company and to whom disclosure of such Confidential Information is reasonably necessary or appropriate in connection with performance by Executive of Executive's duties as an employee and officer of Company; or (2) use any Confidential Information except to the extent it is reasonably necessary or appropriate in connection with performance by Executive of Executive's duties as an employee and officer of Company. Executive promises to take all reasonable precautions to prevent the inadvertent or accidental disclosure or misuse of any Confidential Information. In the event Executive receives a request to disclose all or any part of the Confidential Information under the terms of a subpoena or order issued by a court or governmental body, Executive promises, to the extent permissible by law, to (a) notify Company immediately of the existence, terms and circumstances surrounding such request, (b) consult with Company on the advisability of taking legally available steps to resist or narrow such request, (c) if disclosure is required, furnish only such portion of the Confidential Information as Executive is legally compelled to disclose; and (e) exercise Executive's best efforts to obtain an order or other reliable assurance that confidential treatment will be accorded to the disclosed Confidential Information.

8. NONCOMPETITION.

A. Restricted Period. As used in this Agreement, the term "Restricted Period" means throughout the Employment Term and continuing until the end of the 12 month period following the date on which Executive's employment with Company is terminated for any reason (whether voluntary or involuntary).

B. Prohibition on Competition. Executive hereby covenants and agrees that, until the expiration of the Restricted Period, except for any activity identified on Exhibit A, Executive will not serve as an officer, director, employee, independent contractor, consultant or agent of, or have any ownership interest in, any business entity which engages in any activities anywhere in the world that are materially similar to or competitive with Company's pharmaceutical prodrug development and Commercialization (as defined below) activities in the fields of (i) opioid products for the treatment of pain, (ii) stimulant products for the treatment of ADHD, and/or (iii) such other products which Company is actively and demonstrably developing and/or Commercializing at the time Executive's employment is terminated. If a court of competent jurisdiction finds this non-competition provision invalid or unenforceable due to unreasonableness in time, geographic scope, or scope of Company's

business, then Executive agrees that such court shall interpret and enforce this provision to the maximum extent that such court deems reasonable. For purposes of this Agreement, "Commercialize" or "Commercialization" means the sales and marketing phase with regard to a specific drug candidate in a specific country or region following the regulatory approval of said drug candidate in the applicable country or region.

C. Exceptions. Executive's ownership of less than 5% of the stock of a company that is competitive with the activities of Company as described in Section 8(B) and listed on a national securities exchange shall not be deemed to violate the prohibitions of Section 8(B). Also, Executive shall not be considered to have violated Section 8(B) with respect to the purchasing entity if there is a Sale and Executive becomes an employee, officer, director or shareholder of the purchasing entity.

9. NONSOLICITATION OF EMPLOYEES. Until the expiration of the Restricted Period, Executive shall not, directly or indirectly, either on Executive's own account or for any other person or entity: (a) employ, solicit, induce, advise, or otherwise convince, interfere with Company's employment of, or offer employment to, any employee of Company; (b) employ or otherwise interfere with Company's engagement with, or offer employment to, any consultant of Company; or (c) induce or attempt to induce any such employee or consultant to breach their employment agreement or relationship or consulting agreement or relationship with Company; provided, however, that Executive shall not be in breach of this provision if any such employee or consultant, without inducement or solicitation by Executive, applies for employment at Executive's subsequent employer in response to a general advertisement soliciting employment.

10. REASONABLENESS OF RESTRICTIONS; REMEDIES. Executive has carefully read and considered the restrictive covenants set forth in Sections 7 – 9 hereof, and understands Executive's obligations thereunder, the limitations such obligations will impose upon Executive after termination of Executive's employment with Company, and that the Restricted Period extends for 12 months after the termination of Executive's employment. Executive has had full opportunity to review with Executive's personal attorney this Agreement, including Sections 7 – 9, before executing the Agreement. Executive agrees that, as a result of Executive's position with Company, the length of the Restricted Period and each restriction set forth in Sections 7, 8 and 9 herein are (1) fair and reasonable, (2) reasonably required for the protection of the legitimate business interests and goodwill established by Company, and (3) not overly broad or unduly burdensome to Executive. Executive acknowledges that Executive's compliance with Executive's obligations and restrictive covenants set forth in this Agreement is necessary to protect the business and goodwill of Company. Executive agrees that Executive's breach of Executive's obligations and/or restrictive covenants under this Agreement may irreparably and continually damage Company, for which money damages may not be adequate. Consequently, Executive agrees that in the event that Executive breaches or threatens to breach any of the covenants or agreements contained herein, Company shall be entitled to: (a) seek injunctive relief to prevent or halt Executive from breaching this Agreement; and (b) money damages as determined appropriate by a court of competent jurisdiction. Executive hereby agrees that injunctive relief may be granted by a court of competent jurisdiction without the necessity of Company to post bond, or if required to post bond, Executive agrees that the lowest amount permitted shall be adequate. Nothing in this Agreement shall be construed to prohibit Company from pursuing any other remedy available or from seeking to enforce any restrictive covenants to a lesser extent than set forth herein. The Parties agree that all remedies shall be cumulative. Each party is responsible for its own costs and expenses, including attorneys' fees.

11. NO PRIOR RESTRICTIONS. Executive hereby represents and warrants to Company that the execution, delivery, and performance by Executive of Executive's duties under this Agreement do not violate any provision of any agreement or restrictive covenant which Executive has with any former employer or any other entity. Executive further agrees to honor and inform Company of any and all post-employment obligations Executive has to any former employer or any other entity with which Executive has or had a business relationship.

12. NOTICES. Any notice or communication required or permitted to be given hereunder may be delivered by hand, deposited with an overnight courier, sent by confirmed email, confirmed facsimile, or mailed by registered or certified mail, return receipt requested, postage prepaid, in the case of Company, addressed to Company's principal office marked attention to Company's president, and in the case of Executive, addressed to Executive's personal address as appearing in Company's payroll records, and in each case to such other mail address, e-mail address, or facsimile number as may hereafter be furnished in writing by either Party to the other Party. Such notice will be deemed to have been given as of the date it is hand delivered, emailed, faxed or three days after deposit in the U.S. mail.

13. LIKENESS. Executive hereby grants to Company a license to use, without further compensation or approval from Executive, Executive's name, image, portrait, voice, likeness and all other rights of publicity, or any derivative or modification thereto that Company may create, in any and all mediums, now known or hereafter developed, provided that such use is in relation to Company's business and consistent with professional business standards, and does not disparage or denigrate Executive. Provided, however, if written notice is provided to Company by Executive following termination of Executive's employment requesting that Company cease using Executive's likeness, Company has 30 days to cease using Executive's likeness in the manner set forth in the notice.

14. SECTION 409A; SECTION 162(M).

A. This Agreement is intended to comply with Section 409A of the Code and its corresponding regulations, or an exemption, and payments may only be made under this Agreement upon an event and in a manner permitted by Section 409A of the Code, to the extent applicable. Severance benefits under the Agreement are intended to be exempt from Section 409A of the Code under the "short-term deferral" exception, to the maximum extent applicable, and then under the "separation pay" exception, to the maximum extent applicable. Notwithstanding anything in this Agreement to the contrary, if required by Section 409A of the Code, if Executive is considered a "specified employee" for purposes of Section 409A and if payment of any amounts under this Agreement is required to be delayed for a period of six months after separation from service pursuant to Section 409A of the Code, payment of such amounts shall be delayed as required by Section 409A of the Code, and the accumulated amounts shall be paid in a lump sum payment within 10 days after the end of the six month period. If Executive dies during the postponement period prior to the payment of benefits, the amounts withheld on account of Section 409A of the Code shall be paid to the personal representative of Executive's estate within 60 days after the day of Executive's death. The Parties agree that this Section 14 shall not be construed in a manner so as to accelerate any payments due under this Agreement.

B. All payments to be made upon a termination of employment under this Agreement may only be made upon a "separation from service" under Section 409A of the Code. For purposes of Section 409A of the Code, each payment hereunder shall be treated as a separate payment and the right to a series of installment payments under this Agreement shall be treated as a right to a series of separate payments. In no event may Executive, directly or indirectly, designate the calendar year of a payment. All reimbursements and in-kind benefits provided under the Agreement shall be made or provided in accordance with the requirements of Section 409A of the Code.

C. Executive agrees that if the stock of the Company becomes publicly traded, Executive will make any amendments to the Agreement that the Company deems necessary to allow performance-based compensation to qualify for the "qualified performance-based compensation" exception to Section 162(m) of the Code.

15. ATTORNEYS' FEES FOR NEGOTIATION OF THIS AGREEMENT. Company shall pay for the reasonable attorneys' fees incurred by Executive in connection with the review, negotiation and documentation of this Agreement, up to a maximum of $3,000 in the aggregate.

16. INDEMNIFICATION; LIABILITY INSURANCE. Company shall indemnify and hold Executive harmless to the fullest extent permitted by the laws of Company's state of organization or incorporation in effect at the time against and in respect of any and all actions, suits, proceedings, claims, demands, judgments, costs, expenses (including advancement of reasonable attorney's fees), losses, and damages resulting from Executive's performance of Executive's duties and obligations with Company. Executive will be entitled to be covered, both during and, while potential liability exists, by any insurance policies the Employer may elect to maintain generally for the benefit of officers and directors of the Employer against all costs, charges and expenses incurred in connection with any action, suit or proceeding to which Executive may be made a party by reason of being an officer or director of Company in the same amount and to the same extent as Company covers its other officers and directors. These obligations shall survive the termination of Executive's employment with Company.

17. GENERAL PROVISIONS.

A. Successors and Assigns. The rights and obligations under this Agreement shall survive the termination of Executive's services to Company in any capacity and shall inure to the benefit and shall be binding upon Executive's heirs and personal representatives. Executive's duties and obligations are personal in nature and Executive may not assign or delegate any duties under this Agreement without Company's prior written approval. Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation, reorganization or otherwise) to all or substantially all of the business or assets of Company, within 15 days of such succession, expressly to assume and agree to perform this Agreement in the same manner and to the same extent as Company would be required to perform if no such succession had taken place and Executive acknowledges that in such event the obligations of Executive hereunder will continue to apply in favor of the successor. As used in this Agreement, "Company" shall mean Company and any such successor which assumes and agrees to perform the duties and obligations of Company under this Agreement by operation of law or otherwise.

B. Survival of Certain Terms. The terms, conditions and covenants set forth in this Agreement which specifically relate to periods, activities or obligations upon or subsequent to the termination of Executive's employment, including, without limitation, the restrictive covenants contained in Sections 7 – 9, shall survive the termination of this Agreement and Company's employment of Executive hereunder, and the Parties shall remain bound by such terms, conditions and covenants.

C. Governing Law; Jurisdiction. This Agreement shall be governed by and construed and enforced in accordance with the procedural and substantive laws of the State of Iowa, without regard to its conflicts of laws provisions. The litigation of any disputes arising out of this Agreement shall take place in the appropriate federal or state court located in Johnson County, Iowa. The parties, to the extent they can legally do so, hereby consent to service of process, and to be sued in the State of Iowa and consent to the exclusive jurisdiction of the courts of the State of Iowa and the United States District Court for the Southern District of Iowa, as well as to the jurisdiction of all courts to which an appeal may be taken from such courts, for the purpose of any suit, action or other proceeding arising out of any of their obligations hereunder or with respect to the transactions contemplated hereby, and

expressly waive any and all objections they may have to venue in such courts. Notwithstanding the foregoing, should Executive refuse to comply with an order or judgment of such court, then Company may enforce this Agreement and the order or judgment of such court in any jurisdiction it deems appropriate.

D. Severability, Reform. If any provision of this Agreement is determined to be void, invalid or unenforceable, the remainder shall be unaffected and shall be enforceable as if the void, invalid or unenforceable part was not a provision of the Agreement.

E. Entire Agreement. This Agreement and its attached exhibits, which by this reference are hereby incorporated into and made a part of this Agreement as if set forth herein verbatim, contain the entire understanding of the parties to this Agreement and supersede and replace all former agreements or understandings, oral or written, between Company and Executive, including any offer letter sent to Executive, regarding the subject matter hereof.

F. Modification and Waiver. This Agreement may not be amended except by a written instrument signed by both Parties which specifically refers to the particular provision or provisions being amended. No provision of this Agreement may be waived except in a written instrument that specifically refers to the particular provision or provisions being waived and is signed by the Party against whom the waiver is being asserted. No waiver by any Party of any right, power or privilege hereunder shall constitute a waiver of any other right, power or privilege hereunder, and no waiver by any party of any breach of a provision hereunder shall constitute a waiver of any other breach of that or any other provision of this Agreement.

G. Taxes; Withholding. All compensation and benefits payable to Executive under this Agreement shall be subject to all income and other employment tax withholding and reporting required by federal, state or local law with respect to compensation, benefits and reimbursable expenses paid by a corporation to an employee. Executive shall be responsible for all taxes applicable to amounts payable under this Agreement.

H. Assistance in Litigation. Executive shall reasonably cooperate with Company in the defense or prosecution of any claims or actions now in existence or that may be brought in the future against or on behalf of Company that relate to events or occurrences that transpired while Executive was employed by Company. Executive's cooperation in connection with such claims or actions shall include being available to meet with counsel to prepare for discovery or trial and to act as a witness on behalf of Company at mutually convenient times. Executive also shall cooperate fully with Company in connection with any investigation or review by any federal, state or local regulatory authority as any such investigation or review relates, to events or occurrences that transpired while Executive was employed by Company. Notwithstanding anything to the contrary in this Section 17(H), unless otherwise mutually agreed between Executive and Company in writing and, for each day that Executive performs services under this Section 17(H) Executive shall be reimbursed for her reasonable out-of-pocket expenses and, after the final payment by Company of any and all severance compensation due to Executive under Section 4(E), Company shall pay Executive a per diem cash amount at Executive's Base Salary rate on the Date of Termination.

I. Beneficiaries; References. Executive shall be entitled to select (and change to the extent permitted under any applicable law) a beneficiary or beneficiaries to receive any compensation or benefit payable hereunder following Executive's death, and may change such election, in either case by giving Company written notice thereof. In the event of Executive's death or a judicial determination of Executive's incompetence, reference in this Agreement to Executive shall be deemed, where appropriate, to refer to Executive's beneficiary, estate or other legal representative. Any reference to any gender in this Agreement shall include, where appropriate, the other gender.

J. Voluntary Agreement. Each Party to this Agreement has read and fully understands the terms and provisions hereof, has had an opportunity to review this Agreement with legal counsel, has executed this Agreement based upon such party's own judgment and advice of counsel, and knowingly, voluntarily and without duress, agrees to all of the terms set forth in this Agreement. The Parties have participated jointly in the negotiation and drafting of this Agreement. If an ambiguity or question of intent or interpretation arises, this Agreement will be construed as if drafted jointly by the Parties and no presumption or burden of proof will arise favoring or disfavoring any party because of authorship of any provision of this Agreement. Except as expressly set forth in this Agreement, neither the Parties nor their affiliates, advisors and/or their attorneys have made any representation or warranty, express or implied, at law or in equity with respect of the subject matter contained herein. Without limiting the generality of the previous sentence, Company, its affiliates, advisors and/or attorneys have made no representation or warranty to Executive concerning the state or federal tax consequences to Executive regarding the transactions contemplated by this Agreement.

K. Effect of Headings. Headings to sections and paragraphs of this Agreement are for reference only, and do not form a part of this Agreement, or effect the interpretation of this Agreement.

L. Counterparts. This Agreement may be executed in counterparts, including by transmission of facsimile or PDF copies of signature pages, each of which shall for all purposes are deemed to be an original and all of which shall constitute on instrument. All signatures of the parties transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

[SIGNATURE PAGE FOLLOWS]

SIGNATURE PAGE
OF
EMPLOYMENT AGREEMENT

IN WITNESS WHEREOF, Company has caused this Agreement to be duly executed and delivered by its duly authorized officer, and Executive has duly executed and delivered this Agreement, as of the date first written on page 1 of this Agreement.

KEMPHARM, INC. ("COMPANY"):

By: /s/ Travis C. Mickle
Travis C. Mickle
President and Chief Executive Officer

CHRISTAL MICKLE:

/s/ Christal Mickle

EXHIBIT A
LIST OF OUTSIDE BUSINESS ACTIVITIES

1. Perform limited business services for Mickle Investments, LLC, which entity is jointly owned by Christal and Travis Mickle. Mickle Investments, LLC, dba Mickle Consulting, LLC, provides consulting services (performed by Travis Mickle) to Shire Pharmaceuticals LLC, pursuant to that certain consulting agreement between Shire Pharmaceuticals LLC and Travis Mickle dated December 17, 2012.

EXHIBIT B
RELEASE OF CLAIMS

Separation of Employment Agreement and General Release

THIS SEPARATION OF EMPLOYMENT AGREEMENT AND GENERAL RELEASE (the "Agreement") is made as of this day of , , by and between Christal Mickle ("Executive") and KemPharm, Inc. (the "Company").

WHEREAS, Executive is employed by Company as Vice President of Operations and Product Development;

WHEREAS, Executive and Company entered into an Employment Agreement, dated May 30, 2014, (the "Employment Agreement") which provides for certain benefits in the event that Executive's employment is terminated on account of a reason set forth in the Employment Agreement;

WHEREAS, Executive's employment with Company will terminate effective (the "Termination Date"); and

WHEREAS, in connection with the termination of Executive's employment, the parties have agreed to a separation package and the resolution of any and all disputes between them.

NOW, THEREFORE, IT IS HEREBY AGREED by and between Executive and Company as follows:

1. Executive, for and in consideration of the commitments of Company as set forth in paragraph 6 of this Agreement, and intending to be legally bound, does hereby REMISE, RELEASE AND FOREVER DISCHARGE Company, its stockholders, its present and past affiliates, subsidiaries and parents, their respective officers, directors, investors, employees, and agents, and their respective predecessors, successors and assigns, heirs, executors, and administrators (collectively, "Releasees"), subject to the exceptions of Section 2 of the Agreement, from all causes of action, suits, debts, claims and demands whatsoever in law or in equity, which Executive ever had, now has, or hereafter may have, whether known or unknown, or which Executive's heirs, executors, or administrators may have, by reason of any matter, cause or thing whatsoever, from the beginning of time to the date of this Agreement, to the extent arising from or relating in any way to Executive's employment relationship with Company, the terms and conditions of that employment relationship, and/or the termination of that employment relationship, including, but not limited to, (i) any claims for monetary damages arising under the Age Discrimination in Employment Act ("ADEA"), the Older Workers Benefit Protection Act ("OWBPA"), Title VII of The Civil Rights Act of 1964, the Americans with Disabilities Act; (ii) any and all claims arising under the Family and Medical Leave Act of 1993, the Employee Retirement Income Security Act of 1974, as amended; (iii) any and all claims arising under any applicable state and local fair employment practice laws and wage and hour laws; (iv) any other claims under any federal, state or local common law, statutory, or regulatory provision, now or hereafter recognized; and (v) any claims for attorneys' fees and costs.

2. The foregoing shall in no event apply to (i) enforcement by Executive of Executive's rights under this Agreement, (ii) Executive's rights as a stockholder in Company or any of its affiliates, (iii) Executive's rights to indemnifications under any separate contract or insurance policy, (iv) Executive's right to seek unemployment insurance benefits, (v) Executive's right to seek workers' compensation benefits, (vi) any rights Executive has to indemnification for service as an officer of Company, or (vii) any claims that, as a matter of applicable law, are not waivable. This Agreement is effective without regard to the legal nature of the claims raised and without regard to whether any such claims are based upon tort, equity, implied or express contract or discrimination of any sort.

Executive and Company agree that nothing in this Agreement prevents or prohibits Executive from (i) making any disclosure of relevant and necessary information or documents in connection with any charge, action, investigation, or proceeding relating to this Agreement, or as required by law or legal process; (ii) participating, cooperating, or testifying in any charge, action, investigation, or proceeding with, or providing information to, any self-regulatory organization, governmental agency or legislative body, and/or pursuant to the Sarbanes-Oxley Act, (iii) filing, testifying, participating in or otherwise assisting in a proceeding relating to an alleged violation of any federal, state or municipal law relating to fraud, or any rule or regulation of the Securities and Exchange Commission or any self-regulatory organization or (iv) challenging the knowing and voluntary nature of the release of ADEA claims pursuant to the OWBPA. To the extent permitted by law, upon receipt of any subpoena, court order or other legal process compelling the disclosure of any such information or documents, Executive agrees to give prompt written notice to Company so as to permit Company to protect its interests in confidentiality to the fullest extent possible. To the fullest extent provided by law, Executive acknowledges and agrees, however, Executive is waiving any right to recover monetary damages in connection with any such charge, action, investigation or proceeding. To the extent Executive receives any monetary relief in connection with any such charge, action, investigation or proceeding, Company will be entitled to an offset for the benefits made pursuant to this Agreement, to the fullest extent provided by law.

Executive and Company further agree that the Equal Employment Opportunity Commission ("EEOC") and comparable state or local agencies have the authority to carry out their statutory duties by investigating charges, issuing determinations, and filing lawsuits in Federal or state court in their own name, or taking any action authorized by the EEOC or comparable state or local agencies. Executive retains the right to participate in any such action and to seek any appropriate non-monetary relief. Executive retains the right to communicate with the EEOC and comparable state or local agencies and such communication can be initiated by Executive or in response to the government and such right is not limited by any non-disparagement claims. Executive and Company agree that communication with employees plays a critical role in the EEOC's enforcement process because employees inform the agency of employer practices that might violate the law. For this reason, the right to communicate with the EEOC is a right that is protected by federal law and this Agreement does not prohibit or interfere with those rights. Notwithstanding the foregoing, Executive agrees to waive Executive's right to recover monetary damages in any charge, complaint or lawsuit filed by Executive or by anyone else on Executive's behalf.

3. In consideration of Executive's agreement to comply with the covenants described in Section 6-10 of the Employment Agreement, Company agrees as set forth in paragraph 6 herein.

4. Executive further agrees and recognizes that Executive has permanently and irrevocably severed Executive's employment relationship with Company, that Executive shall not seek employment with Company or any affiliated entity at any time in the future, and that neither Company nor any affiliate has any obligation to employ Executive in the future.

5. Executive agrees that Executive will not disparage or subvert Company or the Releasees, or make any statement reflecting negatively on Company or the Releasees, including, but not limited to, any matters relating to the operation or management of Company, Executive's employment and the termination of Executive's employment, irrespective of the truthfulness or falsity of such statement.

6. In consideration for Executive's agreement as set forth herein, Company agrees to pay and provide Executive with the severance benefits described in Section 4(E)(1) of Executive's Employment

Agreement. Executive agrees that Executive is not entitled to any payments, benefits, severance payments or other compensation beyond that expressly provided in Section 4(E)(1) of Executive's Employment Agreement and the Accrued Benefits (as defined in Section 4(B) of the Employment Agreement).

7. Executive understands and agrees that the payments, benefits and agreements provided in this Agreement are being provided to Executive in consideration for Executive's acceptance and execution of, and in reliance upon Executive's representations in, this Agreement. Executive acknowledges that if Executive had not executed this Agreement containing a release of all claims against Company and the Releasees, Executive would only have been entitled to the payments provided in Company's standard severance pay plan for employees.

8. Executive acknowledges and agrees that Company previously has satisfied any and all obligations owed to Executive under any employment agreement or offer letter Executive has with Company or a Releasee and, further, that this Agreement supersedes any and all prior agreements or understandings, whether written or oral, between the parties, excluding only Executive's and Company's post-termination obligations under Executive's Employment Agreement, Executive's rights under any outstanding equity grants in accordance with the terms of the applicable grant agreements, any obligations relating to the securities of Company or any of its affiliates and Company's obligations under Section 4(E)(1) of Executive's Employment Agreement and to pay or provide the Accrued Benefits (as defined in Section 4(B) of the Employment Agreement), all of which shall remain in full force and effect to the extent not inconsistent with this Agreement, and further, that, except as set forth expressly herein, no promises or representations have been made to Executive in connection with the termination of Executive's Employment Agreement or the terms of this Agreement.

9. Except as may be necessary to obtain approval or authorization to fulfill Executive's or its obligations hereunder or as required by applicable law and subject to the exceptions of Section 2 of the Agreement, (a) Executive agrees not to disclose the terms of this Agreement to anyone, except Executive's spouse, attorney and, as necessary, tax/financial advisor, and (b) Company agrees that the terms of this Agreement will not be disclosed. It is expressly understood that any violation of the confidentiality obligation imposed hereunder constitutes a material breach of this Agreement.

10. Executive represents that Executive does not presently have in Executive's possession any records and business documents, whether on computer or hard copy, and other materials (including but not limited to computer disks and tapes, computer programs and software, office keys, correspondence, files, customer lists, technical information, customer information, pricing information, business strategies and plans, sales records and all copies thereof) (collectively, the "Corporate Records") provided by Company and/or its predecessors, parents, subsidiaries or affiliates or obtained as a result of Executive's employment with Company and/or its predecessors, parents, subsidiaries or affiliates, or created by Executive while employed by or rendering services to Company and/or its predecessors, parents, subsidiaries or affiliates. Executive acknowledges that all such Corporate Records are the property of Company. In addition, Executive shall promptly return in good condition any and all Company owned equipment or property, including, but not limited to, automobiles, personal data assistants, facsimile machines, copy machines, pagers, credit cards, cellular telephone equipment, business cards, laptops and computers. As of the Termination Date, Company will make arrangements to remove, terminate or transfer any and all business communication lines including network access, cellular phone, fax line and other business numbers.

11. Subject to the exceptions of Section 2 of the Agreement, Executive expressly waives all rights afforded by any statute which expressly limits the effect of a release with respect to unknown claims. Executive acknowledges the significance of this release of unknown claims and the waiver of

statutory protection against a release of unknown claims which provides that a general release does not extend to claims which the creditor does not know or suspect to exist in Executive's favor at the time of executing the release, which if known by it must have materially affected its settlement with the debtor.

12. The parties agree and acknowledge that the agreements by Company described herein, and the settlement and termination of any asserted or unasserted claims against the Releasees, are not and shall not be construed to be an admission of any violation of any federal, state or local statute or regulation, or of any duty owed by any of the Releasees to Executive.

13. Executive agrees and recognizes that should Executive breach any of the obligations or covenants set forth in this Agreement, Company will have no further obligation to provide Executive with the consideration set forth herein, and will have the right to seek repayment of all consideration paid up to the time of any such breach. Further, Executive acknowledges in the event of a breach of this Agreement, Releasees may seek any and all appropriate relief for any such breach, including equitable relief and/or money damages.

14. This Agreement and the obligations of the parties hereunder shall be construed, interpreted and enforced in accordance with the laws of the State of Iowa.

15. Executive certifies and acknowledges as follows:

(a) That Executive has read the terms of this Agreement, and that Executive understands its terms and effects, including the fact that Executive has agreed to RELEASE AND FOREVER DISCHARGE Company and each of the Releasees from any legal action arising out of Executive's employment relationship with Company and the termination of that employment relationship;

(b) That Executive has signed this Agreement voluntarily and knowingly in exchange for the consideration described herein, which Executive acknowledges is adequate and satisfactory to Executive and which Executive acknowledges is in addition to any other benefits to which Executive is otherwise entitled;

(c) That Executive has been and is hereby advised in writing to consult with an attorney prior to signing this Agreement;

(d) That Executive does not waive rights or claims that may arise after the date this Agreement is executed;

(e) That Company has provided Executive with a period of [**twenty-one (21)**] or [**forty-five (45)**] days within which to consider this Agreement, and that Executive has signed on the date indicated below after concluding that this Separation of Employment Agreement and General Release is satisfactory to Executive; and

[***Note: The applicable time period will depend on whether the termination is part of a reduction in force (45 days) or not (21 days). In addition, if the termination is in connection with a reduction in force, certain disclosures will need to be made to Executive to comply with the requirements of the ADEA if Executive is at least age 40.***]

(f) Executive acknowledges that this Agreement may be revoked by Executive within seven (7) days after execution, and it shall not become effective until the expiration of such seven (7) day revocation period. In the event of a timely revocation by Executive, this Agreement will be deemed null and void and Company will have no obligations hereunder. Revocation may be achieved only by delivering a letter to **[NAME, TITLE, ADDRESS]**, clearly evidencing a decision to revoke within the seven day revocation period.

Intending to be legally bound hereby, Executive and Company executed the foregoing Separation of Employment Agreement and General Release this day of , .

Witness:

Christal Mickle

KEMPHARM, INC.

By: Witness:

Name:

Title: