
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported): October 5, 2018

KemPharm, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-36913
(Commission
File Number)

20-5894398
(IRS Employer
Identification No.)

2500 Crosspark Road, Suite E126
Coralville, IA
(Address of Principal Executive Offices)

52241
(Zip Code)

Registrant's Telephone Number, Including Area Code: (319) 665-2575

Not Applicable
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instructions A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 1.01 Entry into a Material Definitive Agreement.***Underwriting Agreement***

On October 5, 2018, KemPharm, Inc. (the “*Company*”) entered into an underwriting agreement (the “*Underwriting Agreement*”) with RBC Capital Markets, LLC (the “*Underwriters*”), to issue and sell 8,333,334 shares of common stock of the Company (“*Common Stock*”) in an underwritten public offering pursuant to a Registration Statement on Form S-3 (File No. 333-213926) and a related prospectus and prospectus supplement, in each case filed with the Securities and Exchange Commission (the “*Offering*”). The offering price to the public is \$3.00 per share of Common Stock. In addition, the Company granted the Underwriters an option to purchase, for a period of 30 days, up to an additional 1,250,000 shares of Common Stock. The Company estimates that the net proceeds from the Offering will be approximately \$23.2 million, or approximately \$26.7 million if the Underwriters exercise in full their option to purchase additional shares of Common Stock, in each case after deducting underwriting discounts and commissions and estimated offering expenses.

The Underwriting Agreement contains customary representations, warranties, covenants and agreements by the Company, customary conditions to closing, indemnification obligations of the Company and the Underwriters, including for liabilities under the Securities Act of 1933, as amended, other obligations of the parties and termination provisions. The representations, warranties and covenants contained in the Underwriting Agreement were made only for purposes of such agreement and as of specific dates, were solely for the benefit of the parties to such agreement, and may be subject to limitations agreed upon by the contracting parties. A copy of the Underwriting Agreement is filed as Exhibit 1.1 to this Current Report on Form 8-K and is incorporated herein by reference. The foregoing description of the Underwriting Agreement is qualified in its entirety by reference to such exhibit. A copy of the legal opinion as to the legality of the shares of Common Stock to be issued and sold in the Offering is filed as Exhibit 5.1 to this Current Report on Form 8-K.

Exchange Agreement

On October 5, 2018, the Company entered into an Exchange Agreement (the “*Exchange Agreement*”) with Deerfield Private Design Fund III, L.P. and Deerfield Special Situations Fund, L.P. (the “*Holder*s”). Under the Exchange Agreement, the Holders are exchanging an aggregate of \$9,577,000 principal amount of the Company’s 5.50% Senior Convertible Notes due 2021 for an aggregate of 9,577 shares of Series A Convertible Preferred Stock, par value \$0.0001 per share (the “*Series A Preferred Stock*”). The Company has also agreed to pay the Holders an amount of \$95,104.93 in cash, which represents the amount of accrued and unpaid interest on the exchanged notes.

The Exchange Agreement contains customary representations, warranties and covenants made by the Company and the Holders. The Exchange Agreement also requires the Company to reimburse the Holders for up to \$25,000 of expenses relating to the exchange.

The foregoing description of the Exchange Agreement is a summary and is qualified in its entirety by Exhibit 10.1 attached hereto, which is incorporated by reference into this Item 1.01.

The terms of the Series A Preferred Stock are described in Item 5.03 of this filing. The information provided in Item 5.03 with respect to the Certificate of Designation (as defined below) is hereby incorporated by reference into this Item 1.01.

Item 3.02. Unregistered Sales of Equity Securities.

The information contained above in Item 1.01 related to the Exchange Agreement and below in Item 5.03 related to the Series A Preferred Stock is hereby incorporated by reference into this Item 3.02.

The shares of Series A Preferred Stock were issued in reliance on the exemption from registration provided in Section 3(a)(9) of the Securities Act of 1933, as amended.

Item 3.03. Material Modifications to Rights of Security Holders.

The information contained above in Item 1.01 related to the Exchange Agreement and below in Item 5.03 related to the Series A Preferred Stock is hereby incorporated by reference into this Item 3.03.

Item 5.03. Amendment to Articles of Incorporation or Bylaws; Change in Fiscal Year.***Certificate of Designation of Preferences, Rights and Limitations of the Series A Convertible Preferred Stock***

On October 5, 2018, as a condition to closing of the Exchange Agreement, the Company filed a Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock (the “*Certificate of Designation*”) with the Secretary of State of the State Delaware, setting forth the preferences, rights and limitations of the Series A Preferred Stock. The Certificate of Designation is filed as Exhibit 3.1 to this Current Report on Form 8-K and is incorporated herein by reference.

Each share of Series A Preferred Stock has an aggregate stated value of \$1,000 and is convertible into shares of Common Stock at a per share price equal to \$3.00 per share (subject to adjustment to reflect stock splits and similar events). There are an aggregate of 3,192,334 shares of Common Stock issuable upon conversion of the Series A Preferred Stock (without giving effect to the limitation on conversion described below). The Series A Preferred Stock is convertible at any time at the option of the Holders, provided that the Holders of Series A Preferred Stock are prohibited from converting shares of Series A Preferred Stock into shares of Common Stock if, as a result of such conversion, such Holders (together with certain affiliates and “group” members) would beneficially own more than 4.985% of the total number of shares of Common Stock then issued and outstanding. The Series A Preferred Stock is not redeemable. In the event of the Company’s liquidation, dissolution or winding up, the Holders will receive an amount equal to \$0.0001 per share, plus any declared but unpaid dividends, and thereafter will share ratably in any distribution of the Company’s assets with holders of Common Stock on an as-converted basis. With respect to rights upon liquidation, the Series A Preferred Stock ranks senior to the Common Stock and junior to existing and future indebtedness. Except as otherwise required by law (or with respect to approval of certain actions involving the Company’s organizational documents that materially and adversely affect the Holders of Series A Preferred Stock), the Series A Preferred Stock does not have voting rights. The Series A Preferred Stock is not subject to any price-based anti-dilution protections and does not provide for any accruing dividends, but provides that Holders of Series A Preferred Stock will participate in any dividends on the Common Stock on an as-converted basis (without giving effect to the limitation on conversion described above). The Certificate of Designation also provides for partial liquidated damages in the event that the Company fails to timely convert shares of Series A Preferred Stock into Common Stock in accordance with the Certificate of Designation.

The foregoing description of the Certificate of Designation and the Series A Preferred Stock is a summary and is qualified in its entirety by Exhibit 3.1 attached hereto, which is incorporated by reference into this Item 5.03.

Item 8.01 Other Events.

On October 5, 2018, the Company issued a press release announcing that it had priced the Offering. Copies of the press releases are filed as Exhibit 99.1 to this Current Report on Form 8-K and are incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.**(d) Exhibits**

<u>Exhibit Number</u>	<u>Exhibit Description</u>
1.1	<u>Underwriting Agreement by and among KemPharm, Inc. and RBC Capital Markets, LLC, dated October 5, 2018.</u>
3.1	<u>KemPharm, Inc. Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock.</u>
5.1	<u>Opinion of Cooley LLP.</u>
10.1	<u>Exchange Agreement, dated as of October 5, 2018, by and among KemPharm, Inc., Deerfield Private Design Fund III, L.P. and Deerfield Special Situations Fund, L.P.</u>
23.1	<u>Consent of Cooley LLP (included in Exhibit 5.1).</u>
99.1	<u>Press Release, dated October 5, 2018.</u>

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

KEMPHARM, INC.

Date: October 5, 2018

By: /s/ R. LaDuane Clifton

R. LaDuane Clifton, CPA

Chief Financial Officer, Secretary and Treasurer

8,333,334 Shares

KEMPHARM, INC.

Common Stock

UNDERWRITING AGREEMENT

October 5, 2018

RBC CAPITAL MARKETS, LLC

As Representative of the several Underwriters

c/o RBC Capital Markets, LLC
200 Vesey Street, 8th Floor
New York, New York 10281

Ladies and Gentlemen:

1. *INTRODUCTORY.* KemPharm, Inc., a Delaware corporation (the “**Company**”), proposes to sell, pursuant to the terms of this Underwriting Agreement (“**Agreement**”), to the several underwriters named in Schedule A hereto (the “**Underwriters**,” or, each, an “**Underwriter**”), an aggregate of 8,333,334 shares of common stock, \$0.0001 par value (the “**Common Stock**”), of the Company. The aggregate of 8,333,334 shares so proposed to be sold is hereinafter referred to as the “**Firm Stock**”. The Company also proposes to sell to the Underwriters, upon the terms and conditions set forth in Section 3 hereof, up to an additional 1,250,00 shares of Common Stock (the “**Optional Stock**”). The Firm Stock and the Optional Stock are hereinafter collectively referred to as the “**Stock**”. RBC Capital Markets, LLC is acting as representative of the several Underwriters and in such capacity are hereinafter referred to as the “**Representative**.”

2. *REPRESENTATIONS AND WARRANTIES OF THE COMPANY.* The Company represents and warrants to the several Underwriters as of the date hereof and as of each Closing Date (as defined below), and agrees with the several Underwriters that:

(a) A registration statement of the Company on Form S-3 (File No. 333-213926) (including all pre-effective amendments thereto and all post-effective amendments thereto filed before execution of this Agreement, the “**Initial Registration Statement**”) in respect of the Stock has been filed with the Securities and Exchange Commission (the “**Commission**”). The Company meets the requirements for use of Form S-3 under the Securities Act of 1933, as amended (the “**Securities Act**”), and the rules and regulations of the Commission thereunder (the “**Rules and Regulations**”). The proposed offering of the Stock may be made pursuant to General Instruction I.B.1. of Form S-3. The Initial Registration Statement and any post-effective amendment thereto, each in the form heretofore delivered to you, and, excluding exhibits thereto, to you for each of the other Underwriters, have been declared effective by the Commission in such form and meet the requirements of the Securities Act and the Rules and Regulations. Other than (i) the Initial Registration Statement, (ii) a registration statement, if any, increasing the size of the offering filed pursuant to Rule 462(b) under the Securities Act and the Rules and Regulations (a “**Rule 462(b) Registration Statement**”), (iii) any Preliminary Prospectus, (iv) the Prospectus (as defined below) contemplated by this Agreement to be filed

pursuant to Rule 424(b) of the Rules and Regulations in accordance with Section 4(a) hereof and (v) any Issuer Free Writing Prospectus (as defined below), no other document with respect to the offer and sale of the Stock has heretofore been filed with the Commission. No stop order suspending the effectiveness of the Initial Registration Statement, any post-effective amendment thereto or the Rule 462(b) Registration Statement, if any, has been issued and no proceeding for that purpose or pursuant to Section 8A of the Securities Act has been initiated or, to the Company's Knowledge, threatened by the Commission (any preliminary prospectus included in the Initial Registration Statement or filed with the Commission pursuant to Rule 424(a) of the Rules and Regulations is hereinafter called a "**Preliminary Prospectus**"). The various parts of the Initial Registration Statement and the Rule 462(b) Registration Statement, if any, in each case including all exhibits thereto and including the information contained in the Prospectus filed with the Commission pursuant to Rule 424(b) of the Rules and Regulations and deemed by virtue of Rule 430A, 430B and 430C under the Securities Act to be part of the Initial Registration Statement at the time it became effective are hereinafter collectively called the "**Registration Statements**." The base prospectus included in the Initial Registration Statement at the time of effectiveness thereof (the "**Base Prospectus**"), as supplemented by the final prospectus supplement relating to the offer and sale of the Stock in the form filed pursuant to and within the time limits described in Rule 424(b) under the Rules and Regulations, is hereinafter called the "**Prospectus**."

Any reference herein to the Registration Statement, Preliminary Prospectus or the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein. Any reference to any amendment or supplement to any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include any documents filed after the date of such Preliminary Prospectus or the Prospectus under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and incorporated by reference in such Preliminary Prospectus or Prospectus, as the case may be. Any reference to (i) the Registration Statement shall be deemed to refer to and include the annual report of the last completed fiscal year of the Company on Form 10-K filed under Section 13(a) or 15(d) of the Exchange Act prior to the date hereof and (ii) the effective date of such Registration Statement shall be deemed to refer to and include the date such Registration Statement became effective and, if later, the date such Form 10-K was so filed. Any reference to any amendment to the Registration Statement shall be deemed to refer to and include any annual report of the Company filed pursuant to Section 13(a) or 15(d) of the Exchange Act after the date of this Agreement that is incorporated by reference in the Registration Statement.

(b) As of the Applicable Time (as defined below) and as of the Closing Date or the Option Closing Date (as defined below), as the case may be, neither (i) the General Use Free Writing Prospectus(es) (as defined below) issued at or prior to the Applicable Time, the Pricing Prospectus (as defined below), and the information included on Schedule B hereto, all considered together (collectively, the "**General Disclosure Package**"), (ii) any individual Limited Use Free Writing Prospectus (as defined below), nor (iii) the bona fide electronic road show (as defined in Rule 433(h)(5) of the Rules and Regulations that has been made available without restriction to any person), if any, when considered together with the General Disclosure Package, included or will include any untrue statement of a material fact or omitted or will omit to state a material fact necessary in order to make the

statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however*, that the Company makes no representations or warranties as to information contained in or omitted from the Pricing Prospectus (as defined below) or any Issuer Free Writing Prospectus (as defined below), in reliance upon, and in conformity with, written information furnished to the Company through the Representative by or on behalf of any Underwriter specifically for inclusion therein, which information the parties hereto agree is limited to the Underwriters' Information (as defined in Section 17). As used in this paragraph (b) and elsewhere in this Agreement:

"Applicable Time" means 8:05 A.M., New York time, on the date of this Agreement or such other time as agreed to by the Company and the Representative.

"Pricing Prospectus" means the Base Prospectus, as amended and supplemented immediately prior to the Applicable Time, including any document incorporated by reference therein and any prospectus supplement with respect to the offer of the Stock deemed to be a part thereof.

"Issuer Free Writing Prospectus" means any "issuer free writing prospectus," as defined in Rule 433 of the Rules and Regulations relating to the Stock in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company's records pursuant to Rule 433(g) of the Rules and Regulations.

"General Use Free Writing Prospectus" means any Issuer Free Writing Prospectus that is identified on Schedule C to this Agreement.

"Limited Use Free Writing Prospectuses" means any Issuer Free Writing Prospectus that is not a General Use Free Writing Prospectus.

(c) No order preventing or suspending the use of any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus relating to the proposed offering of the Stock has been issued by the Commission, and no proceeding for that purpose or pursuant to Section 8A of the Securities Act has been instituted or, to the Company's Knowledge, threatened by the Commission, and each Preliminary Prospectus, at the time of filing thereof, conformed in all material respects to the requirements of the Securities Act and the Rules and Regulations, and did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however*, that the Company makes no representations or warranties as to information contained in or omitted from any Preliminary Prospectus, in reliance upon, and in conformity with, written information furnished to the Company through the Representative by or on behalf of any Underwriter specifically for inclusion therein, which information the parties hereto agree is limited to the Underwriters' Information (as defined in Section 17).

(d) At the respective times the Registration Statements and any amendments thereto became or become effective and at each Closing Date, each Registration Statement and any amendments thereto conformed and will conform in all material respects to the requirements of the Securities Act and the Rules and Regulations and did not and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading; and the Prospectus and any amendments or supplements thereto, at the time the Prospectus or any

amendment or supplement thereto was issued and at the Closing Date, conformed and will conform in all material respects to the requirements of the Securities Act and the Rules and Regulations and did not and will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading; *provided, however*, that the foregoing representations and warranties in this paragraph (d) shall not apply to information contained in or omitted from the Registration Statements or the Prospectus, or any amendment or supplement thereto, in reliance upon, and in conformity with, written information furnished to the Company through the Representative by or on behalf of any Underwriter specifically for inclusion therein, which information the parties hereto agree is limited to the Underwriters' Information (as defined in Section 17).

(e) Each Issuer Free Writing Prospectus, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Stock or until any earlier date that the Company notified or notifies the Representative as described in Section 4(h), did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, Pricing Prospectus or the Prospectus, including any document incorporated by reference therein and any prospectus supplement deemed to be a part thereof that has not been superseded or modified, or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however*, that the foregoing representations and warranties in this paragraph (e) shall not apply to information contained in or omitted from an Issuer Free Writing Prospectus in reliance upon, and in conformity with, written information furnished to the Company through the Representative by or on behalf of any Underwriter specifically for inclusion therein, which information the parties hereto agree is limited to the Underwriters' Information (as defined in Section 17).

(f) The documents incorporated by reference in the Prospectus, when they were filed with the Commission conformed in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and none of such documents contained any untrue statement of a material fact or omitted to state any material fact required to be stated therein, or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and any further documents so filed and incorporated by reference in the Prospectus, when such documents are filed with Commission will conform in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(g) The Company has not, directly or indirectly, distributed and will not distribute any offering material in connection with the offering and sale of the Stock other than any Preliminary Prospectus, the Prospectus and other materials, if any, permitted under the Securities Act and consistent with Section 4(d) below. The Company will file with the Commission all Issuer Free Writing Prospectuses required to be filed in the time and manner required under Rules 163(b)(2) and 433(d) of the Rules and Regulations.

(h) From the time of the initial filing of the Registration Statement with the Commission through the date hereof, the Company has been and is an “emerging growth company,” as defined in Section 2(a) of the Securities Act (an “**Emerging Growth Company**”).

(i) The Company currently is not an “ineligible issuer,” as defined in Rule 405 of the Rules and Regulations.

(j) The Company has not engaged in any Testing-the-Waters Communications and has not authorized anyone to engage in Testing-the-Waters Communications. The Company has not distributed any written Testing-the-Waters Communications. “**Testing-the Waters Communications**” means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Securities Act.

(k) The Company has been duly organized and is validly existing as a corporation in good standing (or the foreign equivalent thereof) under the laws of the State of Delaware. The Company is duly qualified to do business and is in good standing as a foreign corporation or in each jurisdiction in which its respective ownership or lease of property or the conduct of its business requires such qualification and has all power and authority (corporate or other) necessary to own or hold its properties and to conduct the business in which it is engaged, except where the failure to so qualify or have such power or authority would not (i) have, singularly or in the aggregate, a material adverse effect on the condition (financial or otherwise), results of operations, assets, liabilities, earnings, business or prospects of the Company, or (ii) impair in any material respect the ability of the Company to perform its obligations under this Agreement or to consummate any transactions contemplated by this Agreement, the General Disclosure Package or the Prospectus (any such effect as described in clauses (i) or (ii), a “**Material Adverse Effect**”). The Company has no subsidiaries.

(l) This Agreement has been duly authorized, executed and delivered by the Company.

(m) The Stock to be issued and sold by the Company to the Underwriters hereunder has been duly and validly authorized and, when issued and delivered against payment therefor as provided herein, will be duly and validly issued, fully paid and nonassessable and will conform to the description thereof contained in the General Disclosure Package and the Prospectus, and the issuance of the Stock is not subject to any preemptive or similar rights.

(n) All of the issued shares of capital stock of the Company, have been duly and validly authorized and issued, are fully paid and non-assessable, have been issued in compliance with federal and state securities laws, and conform in all material respects to the description thereof contained in the General Disclosure Package and the Prospectus under the heading “Description of Capital Stock.” All of the Company’s options, warrants and other rights to purchase or exchange any securities for shares of the Company’s capital stock have been duly authorized and validly issued and were issued in compliance with federal and state securities laws. None of the outstanding shares of Common Stock was issued in violation of any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase securities of the Company. As of June 30, 2018 there were no authorized or outstanding shares of capital stock, options, warrants, preemptive rights, rights of first refusal or other rights to purchase, or equity or

debt securities convertible into or exchangeable or exercisable for, any capital stock of the Company other than those described above or accurately described in the General Disclosure Package. Since such date, the Company has not issued any securities other than (i) as described in the General Disclosure Package, (ii) Common Stock issued pursuant to the exercise of warrants or conversion of convertible securities or upon the exercise or vesting of stock options or other awards outstanding under the Company's equity compensation or other plans, (iii) options, Common Stock or other securities granted or issued pursuant to the Company's equity compensation or other plans, (iv) Common Stock issued pursuant to the terms of that certain Common Stock Sales Agreement by and between the Company and RBC Capital Markets, LLC, dated as of September 4, 2018 (the "**Sales Agreement**"), and (v) the Stock. The description of the Company's stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, as described in the General Disclosure Package and the Prospectus, accurately and fairly present in all material respects the information required to be shown with respect to such plans, arrangements, options and rights.

(o) [Reserved.]

(p) The execution, delivery and performance of this Agreement by the Company, the issue and sale of the Stock by the Company and the consummation of the transactions contemplated hereby will not (with or without notice or lapse of time or both) (i) conflict with or result in a breach or violation of any of the terms or provisions of, constitute a default or a Debt Repayment Triggering Event (as defined below) under, give rise to any right of termination or other right or the cancellation or acceleration of any right or obligation or loss of a benefit under, or give rise to the creation or imposition of any lien, encumbrance, security interest, claim or charge upon any property or assets of the Company pursuant to, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company is a party or by which the Company is bound or to which any of the property or assets of the Company is subject, (ii) result in any violation of the provisions of the certificate of incorporation or by-laws of the Company or (iii) result in any violation of any law, statute, rule, regulation, judgment, order or decree of any court or governmental agency or body, domestic or foreign, having jurisdiction over the Company or any of its properties or assets; except in the cases of clauses (i) and (iii), to the extent that any such conflict, breach, violation or default would not, individually or in the aggregate, have a Material Adverse Effect. A "**Debt Repayment Triggering Event**" means any event or condition that gives, or with the giving of notice or lapse of time would give the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company.

(q) Except for the registration of the Stock under the Securities Act and applicable state securities laws, and such consents, approvals, authorizations, orders and registrations or qualifications that may be required by the Financial Industry Regulatory Authority ("**FINRA**") and the Nasdaq Global Market (the "**Exchange**") in connection with the purchase and distribution of the Stock by the Underwriters and the listing of the Stock on the Exchange, no consent, approval, authorization or order of, or filing, qualification or registration (each an "**Authorization**") with, any court, governmental or

non-governmental agency or body, foreign or domestic, which has not been made, obtained or taken and is not in full force and effect, is required for the execution, delivery and performance of this Agreement by the Company, the offer, issuance and sale of the Stock by the Company or the consummation of the transactions contemplated hereby; and no event has occurred that allows or results in, or after notice or lapse of time or both would allow or result in, revocation, suspension, termination or invalidation of any such Authorization or any other impairment of the rights of the holder or maker of any such Authorization. All corporate approvals (including those of stockholders) necessary for the Company to consummate the transactions contemplated by this Agreement have been obtained and are in effect.

(r) Each of RSM US LLP and Ernst & Young LLP, who have certified certain financial statements included, or incorporated by reference, in the Registration Statements, the General Disclosure Package and the Prospectus, is an independent registered public accounting firm with respect to the Company within the meaning of Article 2-01 of Regulation S-X and the Public Company Accounting Oversight Board (United States) (the “PCAOB”).

(s) The financial statements, together with the related notes, included or incorporated by reference in the General Disclosure Package, the Prospectus and in each Registration Statement fairly present in all material respects the financial position and the results of operations and changes in financial position of the Company at the respective dates or for the respective periods therein specified. Such statements and related notes have been prepared in accordance with the generally accepted accounting principles in the United States (“GAAP”) applied on a consistent basis throughout the periods involved except as may be set forth in the related notes included or incorporated by reference in the General Disclosure Package; and provided that the unaudited interim financial statements, which are subject to normal year-end adjustments, may not contain certain footnotes, as permitted by the applicable rules of the Commission. The financial statements, together with the related notes, included or incorporated by reference in the General Disclosure Package and the Prospectus comply in all material respects with Regulation S-X. No other financial statements or supporting schedules or exhibits are required by Regulation S-X to be described, included or incorporated by reference in the Registration Statements, the General Disclosure Package or the Prospectus. The summary and selected financial data (if any) included or incorporated by reference in the General Disclosure Package, the Prospectus and each Registration Statement fairly present in all material respects the information shown therein as at the respective dates and for the respective periods specified and are derived from the consolidated financial statements set forth in the Registration Statement, the Pricing Prospectus and the Prospectus and other financial information. All information contained or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus regarding “non-GAAP financial measures” (as defined in Regulation G) complies in all material respects with Regulation G and Item 10 of Regulation S-K, to the extent applicable.

(t) Other than as set forth or contemplated in the General Disclosure Package: (i) the Company has not sustained, since the date of the latest audited financial statements included or incorporated by reference in the General Disclosure Package, any material loss or material interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or

governmental action, order or decree; and (ii) since the date of the latest audited financial statements included in the General Disclosure Package, there has not been any material change in the capital stock (other than (1) Common Stock issued pursuant to the exercise of warrants or conversion of convertible securities or upon the exercise or vesting of stock options or other awards outstanding under the Company's equity compensation or other plans, (2) options, Common Stock or other securities granted or issued pursuant to the Company's equity compensation or other plans, (3) Common Stock issued pursuant to the Sales Agreement, (4) the issuance of the Stock and (5) stock repurchases required to be made by the Company pursuant to the terms of existing agreements) or long-term debt of the Company, or any material adverse changes, or any development involving a prospective material adverse change, in or affecting the business, assets, general affairs, management, financial position, prospects, stockholders' equity or results of operations of the Company.

(u) Except as set forth in the General Disclosure Package, there is no legal or governmental proceeding to which the Company is a party or of which any property or assets of the Company is the subject, including any proceeding before the United States Food and Drug Administration of the U.S. Department of Health and Human Services ("FDA") or comparable federal, state, local or foreign governmental bodies (it being understood that the interaction between the Company and the FDA and such comparable governmental bodies relating to the clinical development and product approval process shall not be deemed proceedings for purposes of this representation), which is required to be described in the Registration Statement, the General Disclosure Package or the Prospectus or a document incorporated by reference therein and is not described therein, or which, singularly or in the aggregate, if determined adversely to the Company, would have a Material Adverse Effect; and to the Company's knowledge after reasonable investigation and due diligence inquiry ("**Knowledge**"), no such proceedings are threatened by governmental authorities or by others. The Company is in compliance with all applicable federal, state, local and foreign laws, regulations, orders and decrees governing its business as prescribed by the FDA, or any other federal, state or foreign agencies or bodies engaged in the regulation of pharmaceuticals or biohazardous substances or materials, except where noncompliance would not, singularly or in the aggregate, have a Material Adverse Effect. All preclinical studies and clinical trials conducted by or on behalf of the Company to support approval for commercialization of the Company's products have been conducted by the Company, or to the Company's Knowledge by third parties, in compliance with all applicable federal, state or foreign laws, rules, orders and regulations, except for such failure or failures to be in compliance as would not, singularly or in the aggregate, have a Material Adverse Effect.

(v) Except as described in the General Disclosure Package, the Company (i) is not in violation of its charter or by-laws, (ii) is not in default in any respect, and no event has occurred which, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which it is a party or by which it is bound or to which any of its property or assets is subject (including, without limitation, those administered by the FDA or by any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA) and (iii) is not in violation in any respect of any law, ordinance, governmental rule, regulation or court order, decree or judgment to which it or its property or assets may be subject except, in the case of clauses (ii) and (iii) of this paragraph (v), for any violations or defaults which, singularly or in the aggregate, would not have a Material Adverse Effect.

(w) The Company possesses all licenses, certificates, authorizations and permits issued by, and has made all declarations and filings with, the appropriate local, state, federal or foreign regulatory agencies or bodies (including, without limitation, those administered by the FDA or by any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA) which are necessary for the conduct of its business as described in the General Disclosure Package and the Prospectus (collectively, the “**Governmental Permits**”) except where any failures to possess or make the same, singularly or in the aggregate, would not have a Material Adverse Effect. The Company is in compliance with all such Governmental Permits, except where the failure to be in compliance would not, singularly or in the aggregate, have a Material Adverse Effect; all such Governmental Permits are valid and in full force and effect, except where the invalidity or failure to be in full force and effect would not, singularly or in the aggregate, have a Material Adverse Effect. All such Governmental Permits are free and clear of any material restriction or material condition. The Company has not received notification of any material revocation, modification, suspension, termination or invalidation (or proceedings related thereto) of any such Governmental Permit, and to the Knowledge of the Company, no event has occurred that allows or results in, or after notice or lapse of time or both would allow or result in, revocation, modification, suspension, termination or invalidation (or proceedings related thereto) of any such Governmental Permit and the Company has no Knowledge that any such Governmental Permit will not be renewed. The studies, tests and preclinical studies or clinical trials conducted by or on behalf of the Company that are described in the General Disclosure Package and the Prospectus (the “**Company Studies and Trials**”) were and, if still pending, are being, conducted in all material respects in accordance with experimental protocols, procedures and controls pursuant to, where applicable, accepted professional scientific standards; the descriptions of the results of the Company Studies and Trials contained in the General Disclosure Package and Prospectus are accurate in all material respects; and the Company has not received any notices or correspondence with the FDA or any foreign, state or local governmental body exercising comparable authority requiring the termination, suspension or material modification of any Company Studies or Trials that termination, suspension or material modification would reasonably be expected to have a Material Adverse Effect.

(x) The Company is not and, after giving effect to the offering of the Stock and the application of the proceeds thereof as described in the General Disclosure Package and the Prospectus, will not become an “investment company” or an entity “controlled” by an “investment company” within the meaning of the Investment Company Act of 1940, as amended, and the rules and regulations of the Commission thereunder.

(y) Neither the Company nor any of its officers, directors or, to the Company’s Knowledge, affiliates has taken or will take, directly or indirectly, any action designed or intended to stabilize or manipulate the price of any security of the Company, or which caused or resulted in, or which might in the future reasonably be expected to cause or result in, stabilization or manipulation of the price of any security of the Company.

(z) The Company owns or possesses the valid right to use all (i) valid and enforceable patents, patent applications, trademarks, trademark registrations, service marks, service mark registrations, Internet domain name registrations, copyrights, copyright registrations, licenses, trade secret rights (“**Intellectual Property Rights**”) and (ii) inventions, software, works of authorships, trademarks, service marks, trade names, databases, formulae, know how, Internet domain names and other intellectual property (including trade secrets and other unpatented and/or unpatentable proprietary confidential information, systems, or procedures) (collectively, “**Intellectual Property Assets**”) necessary to conduct its business as currently conducted, and as currently proposed to be conducted and described in the General Disclosure Package and the Prospectus; provided that the foregoing representation is made only to the Company’s Knowledge as it concerns third-party rights and trademarks. The Company has not received any opinion from its legal counsel concluding that any activities of its business as currently conducted infringes, misappropriates, or otherwise violates, valid and enforceable Intellectual Property Rights of any other person, and has not received written notice of any challenge, which is to the Company’s Knowledge still pending, by any other person to the rights of the Company with respect to any Intellectual Property Rights or Intellectual Property Assets owned or used by the Company. To the Knowledge of the Company, the Company’s business as currently conducted does not infringe, misappropriate or otherwise violate any valid and enforceable Intellectual Property Rights of any other person. All licenses for the use of the Intellectual Property Rights described in the General Disclosure Package and the Prospectus are valid, binding upon, and enforceable by or against the Company and, to the Company’s Knowledge, the parties thereto in accordance to its terms, except (i) as limited by laws of general application relating to bankruptcy, insolvency and other relief of debtors, and (ii) as limited by rules of law governing specific performance, injunctive relief or other equitable remedies and by general principals of equity. The Company has complied in all material respects with, and is not in breach in any material respect nor has received any asserted or threatened claim of breach of any intellectual property license, and the Company has no Knowledge of any breach or anticipated breach by any other person to any intellectual property license to which the Company is a party. Except as described in the General Disclosure Package, no claim has been made against the Company alleging the infringement by the Company of any patent, trademark, service mark, trade name, copyright, trade secret, license in or other intellectual property right or franchise right of any person. The Company has taken reasonable steps to protect, maintain and safeguard its Intellectual Property Rights, including the execution of appropriate nondisclosure and confidentiality agreements. The consummation of the transactions contemplated by this Agreement will not result in the loss or impairment of or payment of any additional amounts with respect to, nor require the consent of any other person in respect of, the Company’s right to own, use, or hold for use any of the Intellectual Property Rights as owned, used or held for use in the conduct of the business as currently conducted. The Company has at all times complied with all applicable laws relating to privacy, data protection, and the collection and use of personal information collected, used, or held for use by the Company in the conduct of the Company’s business. No claims have been asserted or threatened against the Company alleging a violation of any person’s privacy or personal information or data rights and the consummation of the transactions contemplated hereby will not breach or otherwise cause any violation of any law related to privacy, data protection, or the collection and use of personal information collected, used, or held for use by the

Company in the conduct of the Company's business. The Company takes reasonable measures to ensure that such information is protected against unauthorized access, use, modification, or other misuse. The Company has taken commercially reasonable measures to obtain ownership of all works of authorship and inventions made by its employees, consultants and contractors during the time they were employed by or under contract with the Company and that are material to the Company's business. All founders and key employees have signed confidentiality and invention assignment agreements with the Company.

(aa) The Company has valid title to, or has valid rights to lease or otherwise use, all items of real or personal property (provided, that for the sake of clarity, rights to Intellectual Property Assets are addressed exclusively in Section 2(z) above) which are material to the business of the Company, in each case free and clear of all liens, encumbrances, security interests, claims and defects other than those described in the General Disclosure Package and the Prospectus and those that do not, singularly or in the aggregate, materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company; and all of the leases and subleases material to the business of the Company and under which the Company holds properties described in the General Disclosure Package and the Prospectus, are in full force and effect, and the Company does not have any notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company to the continued possession of the leased or subleased premises under any such lease or sublease.

(bb) There is (i) no significant unfair labor practice complaint pending against the Company, nor to the Knowledge of the Company, threatened against it, before the National Labor Relations Board, any state or local labor relation board or any foreign labor relations board, and no significant grievance or significant arbitration proceeding arising out of or under any collective bargaining agreement is so pending against the Company, or, to the Knowledge of the Company, threatened against it and (ii) no labor disturbance by the employees of the Company exists or, to the Company's Knowledge, is imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its principal suppliers, manufacturers, customers or contractors, that would be expected, singularly or in the aggregate, to have a Material Adverse Effect. The Company is not aware that any key employee or significant group of employees of the Company plans to terminate employment with the Company.

(cc) No "prohibited transaction" (as defined in Section 406 of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder ("ERISA"), or Section 4975 of the Internal Revenue Code of 1986, as amended from time to time (the "Code")) or "accumulated funding deficiency" (as defined in Section 302 of ERISA) or any of the events set forth in Section 4043(b) of ERISA (other than events with respect to which the thirty (30)-day notice requirement under Section 4043 of ERISA has been waived) has occurred or would reasonably be expected to occur with respect to any employee benefit plan of the Company which would, singularly or in the aggregate, have a Material Adverse Effect. Each employee benefit plan of the Company is in compliance in all material respects with applicable law, including ERISA and the Code. The Company has not incurred and

would not reasonably be expected to incur material liability under Title IV of ERISA with respect to the termination of, or withdrawal from, any pension plan (as defined in ERISA). Each pension plan for which the Company would have any liability that is intended to be qualified under Section 401(a) of the Code is so qualified, and to the Company's Knowledge, nothing has occurred, whether by action or by failure to act, which would, singularly or in the aggregate, cause the loss of such qualification.

(dd) The Company is in compliance in all material respects with all foreign, federal, state and local rules, laws and regulations relating to the use, treatment, storage and disposal of hazardous or toxic substances or waste and protection of health and safety or the environment which are applicable to their businesses ("**Environmental Laws**"). There has been no storage, generation, transportation, handling, treatment, disposal, discharge, emission, or other release of any kind of toxic or other wastes or other hazardous substances by, due to, or caused by the Company (or, to the Company's Knowledge, any other entity for whose acts or omissions the Company is or may reasonably be expected to otherwise be liable) upon any of the property now or previously owned or leased by the Company, or upon any other property, in violation of any law, statute, ordinance, rule, regulation, order, judgment, decree or permit or which would, under any law, statute, ordinance, rule (including rule of common law), regulation, order, judgment, decree or permit, give rise to any liability other than any such violation or liability as would not have, singularly or in the aggregate, a Material Adverse Effect; and there has been no disposal, discharge, emission or other release of any kind onto such property or into the environment surrounding such property of any toxic or other wastes or other hazardous substances with respect to which the Company has Knowledge and which would have, singularly or in the aggregate, a Material Adverse Effect.

(ee) The Company (i) has timely filed all necessary federal, state, local and foreign tax returns (or timely filed extensions with respect to such returns), and all such returns were true, complete and correct in all material respects, (ii) has paid all federal, state, local and foreign taxes, assessments, governmental or other charges due and payable for which it is liable, including, without limitation, all sales and use taxes and all taxes which the Company is obligated to withhold from amounts owing to employees, creditors and third parties (other than such amounts being disputed in good faith and by appropriate proceedings and for which appropriate reserves, if required, have been established), and (iii) does not have any tax deficiency or claims outstanding or assessed or, to its Knowledge, proposed against any of them, except those, in each of the cases described in clauses (i), (ii) and (iii) of this paragraph (ee), that would not, singularly or in the aggregate, have a Material Adverse Effect. The Company has not engaged in any transaction which is a corporate tax shelter or which would be characterized as such by the Internal Revenue Service or any other taxing authority. The accruals and reserves on the books and records of the Company in respect of tax liabilities for any taxable period not yet finally determined are adequate to meet any assessments and related liabilities for any such period, and since December 31, 2016 the Company has not incurred any liability for taxes other than in the ordinary course of business, except as described in the General Disclosure Package and the Prospectus.

(ff) The Company carries, or is covered by, insurance in such amounts and covering such risks as generally deemed adequate and customary for the conduct of its business and the value of its properties and as is customary for companies engaged in similar businesses in similar industries. The Company does not have any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not have a Material Adverse Effect. All policies of insurance owned by the Company are, to the Company's Knowledge, in full force and effect and the Company is in material compliance with the terms of such policies. The Company has not received written notice from any insurer, agent of such insurer or the broker of the Company that any material capital improvements or any other material expenditures (other than premium payments) are required or necessary to be made in order to continue such insurance. The Company does not insure risk of loss through any captive insurance, risk retention group, reciprocal group or by means of any fund or pool of assets specifically set aside for contingent liabilities other than as described in the General Disclosure Package.

(gg) The Company maintains a system of internal control over financial reporting (as such term is defined in Rule 13a-15(f) of the General Rules and Regulations under the Exchange Act (the "**Exchange Act Rules**")) that complies with any applicable requirements of the Exchange Act and has been designed by the Company's principal executive officer and principal financial officer, or under their supervision, to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (v) the interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement is accurate. Except as described in the General Disclosure Package, since the end of the Company's most recent audited fiscal year, there has been (A) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (B) no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. The Company's internal control over financial reporting is overseen by the Audit Committee of the Board of Directors of the Company (the "**Audit Committee**") in accordance with the Exchange Act Rules. The Company has not publicly disclosed or reported to the Audit Committee or to the Board, and within the next 90 days the Company does not reasonably expect to publicly disclose or report to the Audit Committee or the Board, a significant deficiency, material weakness, change in internal control over financial reporting or fraud involving management or other employees who have a significant role in the internal control over financial reporting (each an "**Internal Control Event**"), any violation of, or failure to comply with, U.S. federal securities laws, or any financial reporting matter which, if determined adversely to the Company, would have a Material Adverse Effect.

(hh) A member of the Audit Committee has confirmed to the Chief Executive Officer or Chief Financial Officer of the Company that, except as set forth in the General Disclosure Package, the Audit Committee is not reviewing or investigating, and neither the Company's independent auditors nor its internal auditors is recommending that the

Audit Committee review or investigate, (i) adding to, deleting, changing the application of or changing the Company's disclosure with respect to, any of the Company's material accounting policies, (ii) any matter which could result in a restatement of the Company's financial statements for any annual or interim period during the current or prior three fiscal years, or (iii) any Internal Control Event.

(ii) The Company has made and keeps books, records and accounts, which, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company in all material respects.

(jj) The Company maintains disclosure controls and procedures (as such is defined in Rule 13a-15(e) of the Exchange Act Rules) that comply with any applicable requirements of the Exchange Act; such disclosure controls and procedures have been reasonably designed to ensure that information required to be disclosed by the Company is accumulated and communicated to the Company's management, including the Company's principal executive officer and principal financial officer by others within the Company, and such disclosure controls and procedures will be effective immediately following the completion of the offering.

(kk) The minute books of the Company have been made available to the Underwriters and counsel for the Underwriters, and such books (i) contain an accurate summary of all meetings and actions of the board of directors (including each board committee) and stockholders of the Company since the time of its incorporation through the date of the latest meeting and action (other than such meetings that have occurred subsequent to July 10, 2018, a summary of the actions taken thereat has been communicated to the Underwriters and counsel for the Underwriters), and (ii) accurately in all material respects reflect all transactions referred to in such minutes.

(ll) [Reserved.]

(mm) No relationship, direct or indirect, exists between or among the Company on the one hand, and the directors, officers, stockholders (or analogous interest holders), customers or suppliers of the Company or any of its affiliates on the other hand, which is required to be described in the General Disclosure Package and the Prospectus or a document incorporated by reference therein and which is not so described.

(nn) No person or entity has the right to require registration of shares of Common Stock or other securities of the Company within 90 days of the date hereof because of the filing or effectiveness of the Registration Statements or otherwise, except as described in the General Disclosure Package or except for persons and entities who have expressly waived such right in writing or who have been given timely and proper written notice and have failed to exercise such right within the time or times required under the terms and conditions of such right. Except as described in the General Disclosure Package, there are no persons with registration rights or similar rights to have any securities registered by the Company under the Securities Act.

(oo) The Company does not own any "margin securities" as that term is defined in Regulation U of the Board of Governors of the Federal Reserve System (the "**Federal Reserve Board**"), and none of the proceeds of the sale of the Stock will be used, directly or indirectly, for the purpose of purchasing or carrying any margin security, for the purpose of reducing or retiring any indebtedness which was originally incurred to purchase or carry any margin security or for any other purpose which might cause any of the Stock to be considered a "purpose credit" within the meanings of Regulation T, U or X of the Federal Reserve Board.

(pp) Except as described in the Initial Registration Statement, the General Disclosure Package or the Prospectus, the Company is not a party to any contract, agreement or understanding with any person (other than this Agreement and the Sales Agreement) that would give rise to a valid claim against the Company or the Underwriters for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Stock or any transaction contemplated by this Agreement, the Registration Statements, the General Disclosure Package or the Prospectus.

(qq) [Reserved.]

(rr) [Reserved.]

(ss) Since the date as of which information is given in the General Disclosure Package and the Prospectus through the date hereof, and except as set forth in the Pricing Prospectus, Company has not (i) incurred any material liability or obligation, direct or contingent, other than liabilities and obligations which were incurred in the ordinary course of business, (ii) entered into any material transaction other than in the ordinary course of business or (iii) declared or paid any dividend on its capital stock.

(tt) If applicable, all of the information provided to the Underwriters or to counsel for the Underwriters by the Company, its officers and directors and the holders of any securities (debt or equity) or options to acquire any securities of the Company in connection with letters, filings or other supplemental information provided to FINRA pursuant to FINRA Rule 5110 or 5121 is, to the Company's Knowledge with respect to all other persons except for the Company, its officers and directors, true, correct and complete in all material respects as of the date hereof.

(uu) The Company is not a Passive Foreign Investment Company ("PFIC") within the meaning of Section 1296 of the Code, and the Company is not likely to become a PFIC.

(vv) No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in either the General Disclosure Package or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(ww) The Company is subject to and in compliance in all material respects with the reporting requirements of Section 13 or Section 15(d) of the Exchange Act. The Stock is registered pursuant to Section 12(b) or 12(g) of the Exchange Act and is listed on the Exchange, and the Company has taken no action designed to, or reasonably likely to have the effect of, terminating the registration of the Stock under the Exchange Act or delisting the Stock from the Exchange, nor has the Company received any notification that the Commission or FINRA is contemplating terminating such registration or listing.

(xx) The Company is in compliance in all material respects with all applicable provisions of the Sarbanes-Oxley Act of 2002 and all rules and regulations promulgated thereunder or implementing the provisions thereof (the "**Sarbanes-Oxley Act**") that are then in effect and is taking all reasonable steps to ensure that it will be in compliance in all material respects with other applicable provisions of the Sarbanes-Oxley Act not currently in effect upon the Company at all times after the effectiveness of such provisions.

(yy) The Company is in compliance with all applicable corporate governance requirements set forth in the rules of the Exchange that are then in effect and is taking and will take all reasonable steps to ensure that it will be in compliance with other applicable corporate governance requirements set forth in the rules of the Exchange not currently in effect upon the Company at all times after the effectiveness of such requirements.

(zz) Neither the Company nor, to the Company's Knowledge, any director, officer, employee, agent or affiliate of the Company, has (i) used any corporate funds for unlawful contributions, gifts, entertainment or other unlawful expenses relating to political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to foreign or domestic political parties or campaigns from corporate funds, (iii) violated or is in violation any provision of the Foreign Corrupt Practices Act of 1977, as amended and the rules and regulations thereunder, or any applicable law or regulation implementing the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, or committed an offence under the Bribery Act of 2010 of the United Kingdom, or any other applicable anti-bribery or anti-corruption law; (iv) made, offered, agreed, requested or taken an act in furtherance of any unlawful bribe or other unlawful benefit, including, without limitation, any rebate, payoff, influence payment, kickback or other unlawful or improper payment or benefit, or (v) made any other unlawful payment.

(aaa) There are no transactions, arrangements or other relationships between and/or among the Company, any of its affiliates (as such term is defined in Rule 405 of the Rules and Regulations) and any unconsolidated entity, including, but not limited to, any structured finance, special purpose or limited purpose entity that would reasonably be expected to materially affect the Company's liquidity or the availability of or requirements for its capital resources required to be described in the General Disclosure Package and the Prospectus which have not been described as required.

(bbb) There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees of indebtedness by the Company to or for the benefit of any of the officers or directors of the Company or any of their respective family members, except as disclosed in the Registration Statements, the General Disclosure Package and the Prospectus. All transactions by the Company with office holders or control persons of the Company have been duly approved by the board of directors of the Company, or duly appointed committees or officers thereof, if and to the extent required under applicable U.S. law.

(ccc) The statistical and market related data included in the Registration Statement, the General Disclosure Package and the Prospectus are based on or derived from sources that the Company believes to be reliable and accurate, and such data is consistent with the sources from which they are derived.

(ddd) The operations of the Company are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, applicable money laundering statutes and applicable rules and regulations thereunder (collectively,

the “**Money Laundering Laws**”), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Money Laundering Laws is pending, or to the Company’s Knowledge, threatened. The Company acknowledges that, in accordance with the requirements of the USA Patriot Act, the Representative is required to obtain, verify and record information that identifies its clients, including the Company, which information may include the name and address of its clients, as well as other information that will allow the Representative to properly identify its clients.

(eee) The Company is not Insolvent (as defined below). For purposes of this Section 6(eee), “**Insolvent**” means, with respect to any person, (i) the present fair saleable value of such person’s assets is less than the amount required to pay such person’s total indebtedness, (ii) such person is unable to pay its debts and liabilities, subordinated, contingent or otherwise, as such debts and liabilities become absolute and matured, (iii) such person intends to incur or believes that it will incur debts that would be beyond its ability to pay as such debts mature or (iv) such person has unreasonably small capital with which to conduct the business in which it is engaged as such business is now conducted and is proposed to be conducted.

(fff) None of the Company nor, to the Company’s Knowledge, any director, officer, agent, employee, affiliate or other person associated with or acting on behalf of the Company, any director, officer, agent or employee or affiliate of the Company is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. government (including, without limitation, the Office of Foreign Assets Control (“**OFAC**”) of the U.S. Department of the Treasury or the U.S. Department of State and including, without limitation, the designation as a “specially designated national” or “blocked person”), the United Nations Security Council, the European Union, Her Majesty’s Treasury, or other relevant sanctions authority, nor is the Company’s business located, organized or resident in a country or territory that is subject or target of sanctions, including, without limitation, Cuba, Iran, North Korea, Sudan and Syria; and the Company will not directly or indirectly use the proceeds of the offering of the Stock, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(ggg) There has been no material security breach or other material compromise of or relating to any of the Company’s information technology and computer systems, networks, hardware, software, data (including the data of their respective customers, employees, suppliers, vendors and any third party data maintained by or on behalf of them), equipment or technology (collectively, “**IT Systems and Data**”) and (i) the Company has not been notified of, and has no knowledge of any event or condition that would reasonably be expected to result in, any material security breach or other material compromise to its IT Systems and Data; (ii) the Company is presently in compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Data and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification, except as would not, in the case of this clause (ii), individually or in the aggregate, have a Material Adverse Effect; and (iii) the Company has implemented appropriate backup technology.

(hhh) Neither the Company nor, to the Company's Knowledge, any of its affiliates (within the meaning of FINRA Rule 5121(f)(1)) directly or indirectly controls, is controlled by, or is under common control with, or is an associated person (within the meaning of Article I, Section 1(ee) of the By-laws of FINRA) of, any member firm of FINRA.

(iii) The interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

Any certificate signed by or on behalf of the Company and delivered to the Representative or to counsel for the Underwriters shall be deemed to be a representation and warranty by the Company to each Underwriter as to the matters covered thereby.

3. *PURCHASE, SALE AND DELIVERY OF OFFERED SECURITIES.* On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company agrees to sell to the Underwriters, and the Underwriters agree, severally and not jointly, to purchase from the Company the respective numbers of shares of Firm Stock set forth opposite the names of the Underwriters in Schedule A hereto.

The purchase price per share to be paid by the Underwriters to the Company for the Stock will be \$2.82 per share (the "**Purchase Price**").

The Company will deliver the Firm Stock to the Representative for the respective accounts of the several Underwriters, through the facilities of The Depository Trust Company, issued in such names and in such denominations as the Representative may direct by notice in writing to the Company given at or prior to 12:00 Noon, New York time, on the second (2nd) full business day preceding the Closing Date against payment of the aggregate Purchase Price therefor by wire transfer in federal (same day) funds to an account at a bank acceptable to the Representative payable to the order of the Company, all at the offices of Morgan, Lewis & Bockius LLP, 101 Park Avenue, New York, NY 10178. Time shall be of the essence, and delivery at the time and place specified pursuant to this Agreement is a further condition of the obligations of each Underwriter hereunder. The time and date of the delivery and closing shall be at 10:00 A.M., New York time, on October 10, 2018, or at such other time as the Representative and the Company mutually agree, in accordance with Rule 15c6-1 of the Exchange Act. The time and date of such payment and delivery are herein referred to as the "**Closing Date**". The Closing Date and the location of delivery of, and the form of payment for, the Firm Stock may be varied by agreement between the Company and the Representative.

For the purpose of covering any over-allotments in connection with the distribution and sale of the Firm Stock as contemplated by the Prospectus, the Underwriters may purchase all or less than all of the Optional Stock. The price per share to be paid for the Optional Stock shall be the Purchase Price. The Company agrees to sell to the Underwriters the number of shares of Optional Stock specified in the written notice delivered by the Representative to the Company described below and the Underwriters agree, severally and not jointly, to purchase such shares of Optional Stock. Such shares of Optional Stock shall be purchased from the Company for the account of each Underwriter in the same proportion as the number of shares of Firm Stock set

forth opposite such Underwriter's name on Schedule A bears to the total number of shares of Firm Stock (subject to adjustment by the Representative to eliminate fractions). The option granted hereby may be exercised as to all or any part of the Optional Stock at any time, and from time to time, not more than thirty (30) days subsequent to the date of this Agreement. No Optional Stock shall be sold and delivered unless the Firm Stock previously has been, or simultaneously is, sold and delivered. The right to purchase the Optional Stock or any portion thereof may be surrendered and terminated at any time prior to the exercise of such right upon written notice by the Representative to the Company.

The option granted hereby may be exercised by written notice being given to the Company by the Representative setting forth the number of shares of the Optional Stock to be purchased by the Underwriters and the date and time for delivery of and payment for the Optional Stock. Each date and time for delivery of and payment for the Optional Stock (which may be the Closing Date, but not earlier) is herein called the "**Option Closing Date**" and shall in no event be earlier than two (2) business days nor later than five (5) business days after written notice is given. The Option Closing Date and the Closing Date are herein called the "**Closing Dates**."

The Company will deliver the Optional Stock to the Representative for the respective accounts of the several Underwriters through the facilities of The Depository Trust Company, on the second (2nd) full business day preceding the Option Closing Date against payment of the aggregate Purchase Price therefor by wire transfer in federal (same day) funds to an account at a bank acceptable to the Representative payable to the order of the Company, all at the offices of Morgan, Lewis & Bockius LLP, 101 Park Avenue, New York, NY 10178. Time shall be of the essence, and delivery at the time and place specified pursuant to this Agreement is a further condition of the obligations of each Underwriter hereunder. The Option Closing Date and the location of delivery of, and the form of payment for, the Optional Stock may be varied by agreement between the Company and the Representative.

The several Underwriters propose to offer the Stock for sale upon the terms and conditions set forth in the Prospectus.

4. *FURTHER AGREEMENTS OF THE COMPANY.* The Company agrees with the several Underwriters:

(a) To prepare the Rule 462(b) Registration Statement, if necessary, in a form approved by the Representative and file such Rule 462(b) Registration Statement with the Commission by 10:00 P.M., New York time, on the date hereof, and the Company shall at the time of filing either pay to the Commission the filing fee for the Rule 462(b) Registration Statement or give irrevocable instructions for the payment of such fee pursuant to Rule 111 under the Rules and Regulations; to prepare the Prospectus in a form approved by the Representative containing information previously omitted at the time of effectiveness of the Registration Statement in reliance on Rule 430B of the Rules and Regulations and to file such Prospectus pursuant to Rule 424(b) of the Rules and Regulations not later than the second business (2nd) day following the execution and delivery of this Agreement or, if applicable, such earlier time as may be required and by Rule 430B of the Rules and Regulations; for so long as the delivery of a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) of the Rules and Regulations) is required (the "**Prospectus Delivery Period**"), to notify the Representative promptly of the Company's intention to file or prepare any supplement or amendment to any of the

Registration Statements or to the Prospectus and to make no amendment or supplement to any of the Registration Statements, the General Disclosure Package or to the Prospectus to which the Representative shall reasonably object by notice to the Company after a reasonable period to review; prior to the expiration of the Prospectus Delivery Period, to advise the Representative, promptly after it receives notice thereof, of the time when any amendment to any of the Registration Statements has been filed or becomes effective or any supplement to the General Disclosure Package or the Prospectus or any amended Prospectus has been filed and to furnish the Underwriters with electronic copies thereof; to file promptly all material required to be filed by the Company with the Commission pursuant to Rules 433(d) or 163(b)(2) of the Rules and Regulations with respect to the offering of the Stock, as the case may be; to file promptly all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of the Prospectus and for so long as the delivery of a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) of the Rules and Regulations) is required in connection with the offering or sale of the Stock; to advise the Representative, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus, of the suspension of the qualification of the Stock for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the Registration Statements, the General Disclosure Package or the Prospectus or for additional information; and, in the event of the issuance of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus or suspending any such qualification, and promptly to use its best efforts to obtain the withdrawal of such order.

(b) The Company will promptly notify the Representative if the Company ceases to be an Emerging Growth Company at any time prior to the later of (i) the completion of the distribution of the Firm Stock within the meaning of the Securities Act and (ii) completion of the Lock-Up Period (as defined below).

(c) [Reserved.]

(d) The Company represents and agrees that, unless it obtains the prior consent of the Representative, and each Underwriter represents and agrees that, unless it obtains the prior consent of the Company and the Representative, it has not made and will not, make any offer relating to the Stock that would constitute a “free writing prospectus” as defined in Rule 405 of the Rules and Regulations (each, a “**Permitted Free Writing Prospectus**”); *provided* that the prior written consent of the Representative hereto shall be deemed to have been given in respect of any Issuer Free Writing Prospectus included in Schedule C hereto. The Company represents that it has treated and agrees that it will treat each Permitted Free Writing Prospectus as an Issuer Free Writing Prospectus, comply with the requirements of Rules 164 and 433 of the Rules and Regulations applicable to any Issuer Free Writing Prospectus, including the requirements relating to timely filing with the Commission, legending and record keeping and will not take any action that would result in an Underwriter or the Company being required to file with the Commission pursuant to Rule 433(d) of the Rules and Regulations a free writing prospectus prepared by or on behalf of such Underwriter that such Underwriter otherwise would not have been required to file thereunder.

(e) [Reserved.]

(f) If at any time prior to the expiration of the Prospectus Delivery Period any event occurs or condition exists as a result of which the Prospectus as then amended or supplemented would include any untrue statement of a material fact, or omit to state any material fact necessary to make the statements therein, in light of the circumstances under which they were made when the Prospectus is delivered (or in lieu thereof, the notice referred to in Rule 173(a) of the Rules and Regulations), not misleading, or if it is necessary at any time to amend or supplement any Registration Statement or the Prospectus or to file under the Exchange Act any document incorporated by reference in the Prospectus to comply with the Securities Act or the Exchange Act, that the Company will promptly notify the Representative thereof and upon its request will prepare an appropriate amendment or supplement or upon its request make an appropriate filing pursuant to Section 13 or 14 of the Exchange Act in form and substance satisfactory to the Representative which will correct such statement or omission or effect such compliance and will use its best efforts to have any amendment to any Registration Statement declared effective as soon as possible. The Company will furnish without charge to each Underwriter and to any dealer in securities upon request electronic copies of such amendment or supplement. In case any Underwriter is required to deliver a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) of the Rules and Regulations) relating to the Stock during the Prospectus Delivery Period, the Company upon the request of the Representative will prepare promptly an amended or supplemented Prospectus as may be necessary to permit compliance with the requirements of Section 10(a)(3) of the Securities Act and deliver to such Underwriter as many copies as such Underwriter may reasonably request of such amended or supplemented Prospectus complying with Section 10(a)(3) of the Securities Act.

(g) If the General Disclosure Package is being used to solicit offers to buy the Stock at a time when the Prospectus is not yet available to prospective purchasers and any event shall occur as a result of which, in the judgment of the Company or in the reasonable opinion of the Underwriters, it becomes necessary to amend or supplement the General Disclosure Package in order to make the statements therein, in the light of the circumstances then prevailing, not misleading, or to make the statements therein not conflict with the information contained or incorporated by reference in the Registration Statement then on file and not superseded or modified, or if it is necessary at any time to amend or supplement the General Disclosure Package to comply with any law, the Company promptly will either (i) prepare, file with the Commission (if required) and furnish to the Underwriters and any dealers an appropriate amendment or supplement to the General Disclosure Package or (ii) prepare and file with the Commission an appropriate filing under the Exchange Act which shall be incorporated by reference in the General Disclosure Package so that the General Disclosure Package as so amended or supplemented will not, in the light of the circumstances then prevailing, be misleading or conflict with the Registration Statement then on file, or so that the General Disclosure Package will comply with law.

(h) If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or will conflict with the information contained in the Registration Statement, Pricing Prospectus or Prospectus, including any document incorporated by reference therein and any prospectus supplement deemed to be a part thereof and not superseded or modified or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances prevailing at the subsequent time, not misleading, the Company has promptly notified or will promptly notify the Representative so that any use of the Issuer Free Writing Prospectus may cease until it is amended or supplemented and has promptly amended or will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus in reliance upon, and in conformity with, written information furnished to the Company through the Representative by or on behalf of any Underwriter specifically for inclusion therein, which information the parties hereto agree is limited to the Underwriters' Information (as defined in Section 17).

(i) To the extent not available on the Commission's Electronic Data Gathering, Analysis and Retrieval System (together with any successor system maintained by or on behalf of the Commission) ("EDGAR"), upon reasonable request of the Representative, to furnish promptly to the Representative and to counsel for the Underwriters a signed copy of each of the Registration Statements as originally filed with the Commission, and of each amendment thereto filed with the Commission, including all consents and exhibits filed therewith.

(j) To the extent not available on EDGAR, upon reasonable request of the Representative, to deliver promptly to the Representative in New York City such number of the following documents as the Representative shall reasonably request: (i) conformed copies of the Registration Statements as originally filed with the Commission (in each case excluding exhibits), (ii) each Preliminary Prospectus, (iii) any Issuer Free Writing Prospectus, (iv) the Prospectus (the delivery of the documents referred to in clauses (i), (ii) and (iii) of this paragraph (j) to be made not later than 10:00 A.M., New York time, on the business day following the execution and delivery of this Agreement, and, with respect to the documents referred to in clause (iv) of this paragraph (j), as soon as practicable thereafter), (v) conformed copies of any amendment to the Registration Statement (excluding exhibits), (vi) any amendment or supplement to the General Disclosure Package or the Prospectus (the delivery of the documents referred to in clauses (v) and (vi) of this paragraph (j) to be made not later than 10:00 A.M., New York City time, on the business day following the date of such amendment or supplement) and (vii) any document incorporated by reference in the General Disclosure Package or the Prospectus (excluding exhibits thereto) (the delivery of the documents referred to in clause (vi) of this paragraph (j) to be made not later than 10:00 A.M., New York City time, on the business day following the date of such document).

(k) To make generally available to its stockholders as soon as practicable, but in any event not later than sixteen (16) months after the effective date of each Registration Statement (as defined in Rule 158(c) of the Rules and Regulations), an earnings statement of the Company, to the extent applicable (which need not be audited), complying with Section 11(a) of the Securities Act and the Rules and Regulations (including, at the

option of the Company, Rule 158), and to furnish to its stockholders as soon as practicable after the end of each fiscal year an annual report (including a balance sheet and statements of income, stockholders' equity and cash flows of the Company certified by independent public accountants) and as soon as possible after each of the first three fiscal quarters of each fiscal year (beginning with the first fiscal quarter after the effective date of such Registration Statement), consolidated summary financial information of the Company for such quarter in reasonable detail; *provided*, that so long as the Company is subject to the reporting requirements of Section 13 or Section 15(d) of the Exchange Act and is timely filing reports with the Commission on EDGAR, the Company shall be deemed to be in compliance with the foregoing requirements to furnish such annual reports and quarterly financial information to its stockholders.

(l) To take promptly from time to time such actions as the Representative may reasonably request to qualify the Stock for offering and sale under the securities or Blue Sky laws of such jurisdictions (domestic or foreign) as the Representative may designate and to continue such qualifications in effect, and to comply with such laws, for so long as required to permit the offer and sale of Stock in such jurisdictions; *provided* that the Company shall not be obligated to qualify as a foreign corporation in any jurisdiction in which it is not so qualified or to file a general consent to service of process in any jurisdiction or to become subject to taxation in any jurisdiction.

(m) Upon request, during the period of three (3) years from the date hereof, to deliver to each of the Underwriters, (i) as soon as they are available, copies of all reports or other communications furnished to stockholders, and (ii) as soon as they are available, copies of any reports and financial statements furnished or filed with the Commission or any national securities exchange on which the Stock is listed. However, so long as the Company is subject to the reporting requirements of either Section 13 or Section 15(d) of the Exchange Act and is timely filing reports with the Commission on its EDGAR system, it is not required to furnish such reports or statements to the Underwriters.

(n) That the Company will not, for a period of ninety (90) days from the date of this Agreement (the "**Lock-Up Period**"), without the prior written consent of the Representative, directly or indirectly offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of or announce the intention to otherwise dispose of, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, other than: (i) the Company's sale of the Stock hereunder; (ii) the issuance of Common Stock or options to acquire Common Stock or other equity awards pursuant to the Company's equity compensation or other plans as such plans are in existence on the date hereof and described in the Prospectus; (iii) the issuance of Common Stock pursuant to the valid exercises, vesting, exchanges or conversion of options, warrants, convertible or exchangeable securities or rights outstanding on the date hereof or otherwise issued pursuant to clause (iii) or (v); (iv) the issuance of Common Stock or securities convertible into or exercisable for shares of Common Stock in connection with any acquisition, collaboration, licensing or other strategic transactions or any debt financing transaction; or (v) the issuance of securities convertible into Common Stock pursuant to that certain Exchange Agreement with certain holders of the Company's 5.50% Senior Convertible Notes due 2021, as described in the Prospectus under the heading "Summary – Recent Developments"; *provided* that, in the case of clause (iv), the sum of the aggregate number of shares of Common Stock or securities

convertible into or exercisable for shares of Common Stock so issued shall not exceed 10% of the total outstanding shares of Common Stock immediately following the completion of the offering of the Stock and recipients of such shares of Common Stock or such securities convertible into or exercisable for shares of Common Stock agree in writing with the Representative not to, or are otherwise party to agreements with the Company pursuant to which they have agreed not to, directly or indirectly offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of or announce the intention to otherwise dispose of, such shares of Common Stock or such securities convertible into or exercisable or exchangeable for Common Stock during the Lock-Up Period without the prior written consent of the Representative (which consent may be withheld in the Representative's sole discretion). The Company will cause each of the Company's executive officers and directors, and each person or entity set forth on Schedule D hereto, to furnish to the Representative, prior to the Closing Date, a letter, substantially in the form of Exhibit I hereto. The Company also agrees that during such period, other than for the sale of the Stock hereunder, the Company will not file any registration statement, preliminary prospectus or prospectus, or any amendment or supplement thereto, under the Securities Act for any such transaction or which registers, or offers for sale, Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, except for (x) a registration statement on Form S-8 relating to employee stock purchase and employee benefit plans, or (y) a registration statement on Form S-3 pursuant to Section 2.1 of that certain Amended and Restated Investors' Rights Agreement by and among the Company and the "Shareholders" party thereto, dated as of February 19, 2015.

(o) [Reserved.]

(p) To supply the Representative with copies of all correspondence to and from, and all documents issued to and by, the Commission in connection with the registration of the Stock under the Securities Act or any of the Registration Statements, any Preliminary Prospectus or the Prospectus, or any amendment or supplement thereto.

(q) [Reserved.]

(r) Prior to the latest of the Closing Dates, not to issue any press release or other public communication directly or indirectly or hold any press conference with respect to the Company, its condition, financial or otherwise, or earnings, business affairs or business prospects (except for routine oral marketing communications in the ordinary course of business and consistent with the past practices of the Company and of which the Representative are notified), without the prior written consent of the Representative, unless in the judgment of the Company and its counsel, and after notification to the Representative, such press release or communication is required by law, rule or regulation or the rules of the Exchange.

(s) Until the Representative shall have notified the Company of the completion of the resale of the Stock, that the Company will not, and will cause its affiliated purchasers (as defined in Regulation M under the Exchange Act) not to, either alone or with one or more other persons, bid for or purchase, for any account in which it or any of its affiliated purchasers has a beneficial interest, any Stock, or attempt to induce any person to purchase any Stock in violation of Regulation M under the Exchange Act; and not to, and to cause its affiliated purchasers not to, make bids or purchase for the purpose of creating actual, or apparent, active trading in or of raising the price of the Stock in violation of Regulation M under the Exchange Act.

(t) Not to take any action prior to the latest of the Closing Dates which would require the Prospectus to be amended or supplemented pursuant to Section 4(f).

(u) To at all times comply in all material respects with all applicable provisions of the Sarbanes-Oxley Act in effect from time to time and to file with the Commission such information on Form 10-Q or Form 10-K as may be required by Rule 463 of the Rules and Regulations.

(v) To maintain, at its expense, a registrar and transfer agent for the Stock.

(w) To apply the net proceeds from the sale of the Stock as set forth in the Registration Statement, the General Disclosure Package and the Prospectus under the heading "Use of Proceeds," and except as disclosed in the General Disclosure Package, the Company does not intend to use any of the proceeds from the sale of the Stock hereunder to repay any outstanding debt owed to any affiliate of any Underwriter. The Company shall manage its affairs and investments in such a manner as not to be or become an "investment company" within the meaning of the Investment Company Act and the rules and regulations thereunder.

(x) To use its best efforts to list, subject to notice of issuance, and to use its commercially reasonable efforts to maintain the listing of, the Stock on the Exchange.

(y) To use its commercially reasonable efforts to do and perform all things required to be done or performed under this Agreement by the Company prior to each Closing Date and to satisfy all conditions precedent to the delivery of the Firm Stock and the Optional Stock.

(z) Upon request of any Underwriter, to furnish, or cause to be furnished, to such Underwriter an electronic version of the Company's trademarks, servicemarks and corporate logo for use on the website, if any, operated by such Underwriter for the purpose of facilitating the on-line offering of the Stock (the "License"); *provided, however* that the License shall be used solely for the purpose described above, is granted without any fee and may not be assigned or transferred.

5. *PAYMENT OF EXPENSES.* The Company agrees to pay, or reimburse if paid by any Underwriter, whether or not the transactions contemplated hereby are consummated or this Agreement is terminated: (a) the costs incident to the authorization, issuance, sale, preparation and delivery of the Stock and any taxes payable in that connection; (b) the costs incident to the registration of the Stock under the Securities Act; (c) the costs incident to the preparation, printing and distribution of the Registration Statements, the Base Prospectus, any Preliminary Prospectus, any Issuer Free Writing Prospectus, the General Disclosure Package, the Prospectus, any amendments, supplements and exhibits thereto or any document incorporated by reference therein and the costs of printing, reproducing and distributing this Agreement and any closing documents by mail, telex or other means of communications; (d) the fees and expenses (including documented related fees and expenses of counsel for the Underwriters) (i) incurred in connection with securing any required review by FINRA of the terms of the sale of the Stock and any filings made with FINRA and (ii) of qualifying the Stock under the securities laws of the several jurisdictions as provided in Section 4(l)) and of preparing, printing and distributing wrappers, Blue Sky Memoranda and Legal Investment Surveys, in an amount not to exceed in

the aggregate pursuant to the foregoing clauses (i) and (ii) \$15,000; (e) any applicable listing or other fees; (f) the cost of preparing and printing stock certificates; (g) all fees and expenses of the registrar and transfer agent of the Stock; (h) the costs and expenses of the Company relating to investor presentations on any "road show" undertaken in connection with the marketing of the offering of the Stock, including, without limitation, expenses associated with the preparation or dissemination of any electronic road show, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations with the prior approval of the Company, travel and lodging expenses of the officers of the Company and such consultants and 50% of the cost of any aircraft chartered in connection with the road show with the prior consent of the Company, such consent not to be unreasonably withheld; and (i) all other costs and expenses of the Company incident to the offering of the Stock or the performance of the obligations of the Company under this Agreement (including, without limitation, the fees and expenses of the Company's counsel and the Company's independent accountants); *provided that*, except to the extent otherwise provided in this Section 5 and in Sections 9 and 10, the Underwriters shall pay their own costs and expenses, including the fees and expenses of their counsel, any transfer taxes on the resale of any Stock by them and the expenses of advertising any offering of the Stock made by the Underwriters and travel and lodging expenses of the representatives of the Underwriters and 50% of the cost of any aircraft chartered in connection with the road show.

6. *CONDITIONS OF UNDERWRITERS' OBLIGATIONS.* The respective obligations of the several Underwriters hereunder are subject to the accuracy, when made and as of the Applicable Time and on each Closing Date, of the representations and warranties of the Company contained herein, to the accuracy of the statements of the Company made in any certificates pursuant to the provisions hereof, to the performance by the Company of its obligations hereunder, and to each of the following additional terms and conditions:

(a) The Registration Statements have become effective under the Securities Act, and no stop order suspending the effectiveness of any Registration Statement or any part thereof, preventing or suspending the use of any Preliminary Prospectus, the Prospectus or any Permitted Free Writing Prospectus or any part thereof shall have been issued and no proceedings for that purpose or pursuant to Section 8A under the Securities Act shall have been initiated or threatened by the Commission, and all requests for additional information on the part of the Commission (to be included or incorporated by reference in the Registration Statements or the Prospectus or otherwise) shall have been complied with to the reasonable satisfaction of the Representative; the Rule 462(b) Registration Statement, if any, each Issuer Free Writing Prospectus and the Prospectus shall have been filed with the Commission within the applicable time period prescribed for such filing by, and in compliance with, the Rules and Regulations and in accordance with Section 4(a), and the Rule 462(b) Registration Statement, if any, shall have become effective immediately upon its filing with the Commission; and FINRA shall have raised no unresolved objection to the fairness and reasonableness of the terms of this Agreement or the transactions contemplated hereby.

(b) None of the Underwriters shall have discovered and disclosed to the Company on or prior to such Closing Date that any Registration Statement or any amendment or supplement thereto contains an untrue statement of a fact which, in the opinion of counsel for the Underwriters, is material or omits to state any fact which, in the opinion of such counsel, is material and is required to be stated therein or is necessary to make the

statements therein not misleading, or that the General Disclosure Package, any Issuer Free Writing Prospectus or the Prospectus or any amendment or supplement thereto contains an untrue statement of fact which, in the opinion of such counsel, is material or omits to state any fact which, in the opinion of such counsel, is material and is necessary in order to make the statements, in the light of the circumstances in which they were made, not misleading.

(c) All corporate proceedings and other legal matters incident to the authorization, form and validity of each of this Agreement, the Stock, the Registration Statements, the General Disclosure Package, each Issuer Free Writing Prospectus and the Prospectus and all other legal matters relating to this Agreement and the transactions contemplated hereby shall be reasonably satisfactory in all material respects to counsel for the Underwriters, and the Company shall have furnished to such counsel all documents and information that they may reasonably request to enable them to pass upon such matters.

(d) Cooley LLP shall have furnished to the Representative such counsel's written opinion and negative assurance letter, as counsel to the Company, addressed to the Underwriters and dated as of such Closing Date, in form and substance reasonably satisfactory to the Representative.

(e) McAndrews, Held & Malloy, Ltd. shall have furnished to the Representative such counsel's written opinion, as intellectual property counsel to the Company, addressed to the Underwriters and dated as of such Closing Date, in form and substance reasonably satisfactory to the Representative.

(f) [Reserved.]

(g) The Representative shall have received from Morgan, Lewis & Bockius LLP, counsel for the Underwriters, such counsel's written opinion or opinions, dated as of such Closing Date, with respect to such matters as the Underwriters may reasonably require, and the Company shall have furnished to such counsel such documents as they request for enabling them to pass upon such matters.

(h) At the time of the execution of this Agreement, the Representative shall have received from each of RSM US LLP and Ernst & Young LLP letters, addressed to the Underwriters, executed and dated such date, in form and substance satisfactory to the Representative (i) confirming that they are an independent registered accounting firm with respect to the Company within the meaning of the Securities Act and the Rules and Regulations and PCAOB and (ii) stating the conclusions and findings of such firm, of the type ordinarily included in accountants' "comfort letters" to underwriters, with respect to the financial statements and certain financial information contained or incorporated by reference in the Registration Statements, the General Disclosure Package and the Prospectus.

(i) On the effective date of any post-effective amendment to any Registration Statement and on such Closing Date, the Representative shall have received letter (the "**bring-down letters**") from each of RSM US LLP and Ernst & Young LLP addressed to the Underwriters and dated such Closing Date confirming, as of the date of the bring-down letters (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the General Disclosure Package and the Prospectus, as the case may be, as of a date not more than

three (3) business days prior to the date of the bring-down letters), the conclusions and findings of such firm, of the type ordinarily included in accountants' "comfort letters" to underwriters, with respect to the financial information and other matters covered by its letters delivered to the Representative concurrently with the execution of this Agreement pursuant to paragraph (h) of this Section 6.

(j) The Company shall have furnished to the Representative a certificate, dated such Closing Date, of its Chief Executive Officer and its Chief Financial Officer, in their capacities as such, stating that (i) such officers have carefully examined the Registration Statement, the General Disclosure Package, any Permitted Free Writing Prospectus and the Prospectus and, in their opinion on behalf of the Company, the Registration Statements and each amendment thereto, as of their respective effective dates and as of such Closing Date did not include any untrue statement of a material fact and did not omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, and the General Disclosure Package, as of the Applicable Time and as of such Closing Date, any Permitted Free Writing Prospectus as of its date and as of such Closing Date, the Prospectus and each amendment or supplement thereto, as of the respective date thereof and as of such Closing Date, did not include any untrue statement of a material fact and did not omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances in which they were made, not misleading, (ii) since the effective date of the Initial Registration Statement, no event has occurred which should have been set forth in a supplement or amendment to the Registration Statements, the General Disclosure Package or the Prospectus that has not been so set forth therein, (iii) to their knowledge after reasonable investigation, as of such Closing Date, the representations and warranties of the Company in this Agreement are true and correct and the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to such Closing Date, and (iv) there has not been, subsequent to the date of the most recent audited financial statements included in the General Disclosure Package, any material adverse change in the financial position or results of operations of the Company, or any change or development that, singularly or in the aggregate, would involve a Material Adverse Effect, except as set forth in the Prospectus.

(k) Since the date of the latest audited financial statements included in the General Disclosure Package or incorporated into the General Disclosure Package as of the date hereof, (i) the Company shall not have sustained any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth in the General Disclosure Package, and (ii) there shall not have been any change in the capital stock (other than (1) Common Stock issued pursuant to the exercise of warrants or conversion of convertible securities or upon the exercise or vesting of stock options or other awards outstanding under the Company's equity compensation or other plans, (2) options, Common Stock or other securities granted or issued pursuant to the Company's equity compensation or other plans, (3) Common Stock issued pursuant to the Sales Agreement, (4) the issuance of the Stock and (5) stock repurchases required to be made by the Company pursuant to the terms of existing agreements) or long-term debt of the Company, or any change, or any development involving a prospective change, in or affecting the business, general affairs, management, financial position, stockholders' equity or results of operations of the Company, in each case, otherwise than as set forth in

the General Disclosure Package, the effect of which, in any such case described in clause (i) or (ii) of this paragraph (k), is, in the judgment of the Representative, so material and adverse as to make it impracticable or inadvisable to proceed with the sale or delivery of the Stock on the terms and in the manner contemplated in the General Disclosure Package.

(l) No action shall have been taken and no law, statute, rule, regulation or order shall have been enacted, adopted or issued, in each case, by any governmental agency or body which would prevent the issuance or sale of the Stock or materially and adversely affect or potentially materially and adversely affect the business or operations of the Company; and no injunction, restraining order or order of any other nature by any federal or state court of competent jurisdiction shall have been issued which would prevent the issuance or sale of the Stock or materially and adversely affect or potentially materially and adversely affect the business or operations of the Company.

(m) Subsequent to the execution and delivery of this Agreement there shall not have occurred any of the following: (i) trading in securities generally on the New York Stock Exchange, the Exchange or the NYSE MKT LLC or in the over-the-counter market, or trading in any securities of the Company on any exchange or in the over-the-counter market, shall have been suspended or materially limited, or minimum or maximum prices or maximum range for prices shall have been established on any such exchange or such market by the Commission, by such exchange or market or by any other regulatory body or governmental authority having jurisdiction, (ii) a banking moratorium shall have been declared by Federal or state authorities or a material disruption has occurred in commercial banking or securities settlement or clearance services in the United States, (iii) the United States shall have become engaged in hostilities, or the subject of an act of terrorism, or there shall have been an outbreak of or escalation in hostilities involving the United States, or there shall have been a declaration of a national emergency or war by the United States or (iv) there shall have occurred such a material adverse change in general economic, political or financial conditions (or the effect of international conditions on the financial markets in the United States shall be such) as to make it, in the judgment of the Representative, impracticable or inadvisable to proceed with the sale or delivery of the Stock on the terms and in the manner contemplated in the General Disclosure Package and the Prospectus.

(n) The Company shall have submitted a listing of additional shares notification form to the Exchange with respect to the Stock.

(o) The Representative shall have received on and as of such Closing Date satisfactory evidence of the good standing of the Company in the State of Delaware and its good standing as a foreign entity in the State of Iowa, the State of Florida and the Commonwealth of Virginia, in each case in writing or any standard form of telecommunication from the appropriate Governmental Authorities of such jurisdictions.

(p) The Representative shall have received the written agreements, substantially in the form of Exhibit I hereto, from each of the Company's executive officers and directors, and each person or entity set forth on Schedule D hereto.

(q) On or prior to such Closing Date, the Company shall have furnished to the Representative such further certificates and documents as the Representative may reasonably request.

All opinions, letters, evidence and certificates mentioned above or elsewhere in this Agreement shall be deemed to be in compliance with the provisions hereof only if they are in form and substance reasonably satisfactory to counsel for the Underwriters.

7. INDEMNIFICATION AND CONTRIBUTION.

(a) The Company agrees to indemnify, defend and hold harmless each Underwriter, its partners, employees, agents, members, directors and officers, any person who controls each Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act and any "affiliate" (within the meaning of Rule 405 under the Securities Act) of each Underwriter that has, or is alleged to have, participated in the distribution of Stock, and the successors and assigns of all the foregoing persons, from and against any loss, damage, expense, liability or claim (including, without limitation, the reasonable and documented cost of investigation and any reasonable and documented legal fees and other documented expenses reasonably incurred in connection with any suit, action, investigation or proceeding or any claim asserted), joint or several, which each Underwriter or any such person may incur under the Securities Act, the Exchange Act, the common law or otherwise, insofar as such loss, damage, expense, liability or claim arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or in the Registration Statement as amended by any post-effective amendment thereof by the Company) or arises out of or is based upon any omission or alleged omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading, except insofar as any such loss, damage, expense, liability or claim arises out of or is based upon any untrue statement or alleged untrue statement of a material fact contained in, and in conformity with information furnished in writing by or on behalf of the Representative to the Company expressly for use in, the Registration Statement or arises out of or is based upon any omission or alleged omission to state a material fact in the Registration Statement in connection with such information, which material fact was not contained in such information and which material fact was required to be stated in such Registration Statement or was necessary to make such information not misleading or (ii) any untrue statement or alleged untrue statement of a material fact included in any Prospectus (the term Prospectus for the purpose of this Section 7 being deemed to include the Prospectus and any amendments or supplements to it), in any "issuer information" (as defined in Rule 433 under the Securities Act) of the Company, in any road show as defined under Rule 433(h) under the Securities Act (a "**road show**") or in any free writing prospectus, or arises out of or is based upon any omission or alleged omission to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, except, with respect to such Prospectus, insofar as any such loss, damage, expense, liability or claim arises out of or is based upon any untrue statement or alleged untrue statement of a material fact contained in, and in conformity with information furnished in writing by or on behalf of the Representative to the Company expressly for use in, such Prospectus or arises out of or is based upon any omission or alleged omission to state a material fact in such Prospectus in connection with such information, which material fact was not contained in such information and which material fact was necessary in order to make the statements in such information, in the light of the circumstances under which they were made, not misleading.

If any action, suit or proceeding (together, a “**Proceeding**”) is brought against any Underwriter or any such person in respect of which indemnity may be sought against the Company pursuant to the foregoing paragraph, such Underwriter or such person shall promptly notify the Company in writing of the institution of such Proceeding and the Company shall assume the defense of such Proceeding, including the employment of counsel reasonably satisfactory to such indemnified party and payment of all reasonably and documented fees and expenses; provided, however, that the omission to so notify the Company shall not relieve the Company from any liability which the Company may have to such Underwriters or any such person or otherwise except to the extent the Company was materially prejudiced by such omission, which shall include without limitation the loss of any material rights or defenses resulting therefrom. Such Underwriter or such person shall have the right to employ its or their own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of such Underwriter or of such person unless the employment of such counsel shall have been authorized in writing by the Company in connection with the defense of such Proceeding or the Company shall not have, within a reasonable period of time in light of the circumstances, employed counsel to have charge of the defense of such Proceeding or such indemnified party or parties shall have reasonably concluded that there may be defenses available to it or them which are different from, additional to or in conflict with those available to the Company (in which case the Company shall not have the right to direct the defense of such Proceeding on behalf of the indemnified party or parties), in any of which events such reasonable and documented fees and expenses shall be borne by the Company, and paid as incurred (it being understood, however, that the Company shall not be liable for the fees and expenses of more than one separate counsel (in addition to any local counsel) in any one Proceeding or series of related Proceedings in the same jurisdiction representing the indemnified parties who are parties to such Proceeding). The Company shall not be liable for any settlement of any Proceeding effected without its written consent but, if settled with the written consent of the Company, the Company agrees to indemnify and hold harmless the Underwriters and any such person from and against any loss or liability by reason of such settlement. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested the Company to reimburse the indemnified party for reasonable and documented fees and expenses of counsel as contemplated by the second sentence of this paragraph, then the Company agrees that it shall be liable for any settlement of any Proceeding effected without its written consent if (i) such settlement is entered into more than 60 business days after receipt by the Company of the aforesaid request, (ii) the Company shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement and (iii) such indemnified party shall have given the Company at least 30 days’ prior notice of its intention to settle. The Company shall not, without the prior written consent of the indemnified party, effect any settlement of any pending or threatened Proceeding in respect of which any indemnified party is or may be a party and indemnity could have been sought hereunder by such indemnified party, unless such settlement includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such Proceeding and does not include any statement as to or an admission of fault, culpability or a failure to act, by or on behalf of such indemnified party.

(b) Each Underwriter, severally and not jointly, agrees to indemnify and hold harmless each of the Company, its respective partners, employees, agents, members, directors and each officer that signed the Registration Statement, each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, and the successors and assigns of all of the foregoing persons from and against any loss, damage, expense, liability or claim (including, without limitation, the reasonable and documented cost of investigation and any reasonable and documented legal fees and other documented expenses reasonably incurred in connection with any suit, action, investigation or proceeding or any claim asserted), joint or several, which the Company or any such person may incur under the Securities Act, the Exchange Act, the common law or otherwise, insofar as such loss, damage, expense, liability or claim arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact made in reliance upon and in conformity with any information relating to the Underwriters furnished in writing by or on behalf of the Representative to the Company expressly for use with reference to the Underwriters in the Registration Statement (or in the Registration Statement as amended by any post-effective amendment thereof by the Company), or arises out of or is based upon any omission or alleged omission to state a material fact in such Registration Statement in connection with such information, which material fact was not contained in such information and which material fact was required to be stated in such Registration Statement or was necessary to make such information not misleading or (ii) any untrue statement or alleged untrue statement of a material fact made in reliance upon and in conformity with any information relating to the Underwriters furnished in writing by or on behalf of the Representative to the Company expressly for use with reference to the Underwriters in the Prospectus, in any road show or in any free writing prospectus or arises out of or is based upon any omission or alleged omission to state a material fact therein in connection with such information, which material fact was not contained in such information and which material fact was necessary in order to make the statements in such information, in the light of the circumstances under which they were made, not misleading.

If any Proceeding is brought against the Company or any such person in respect of which indemnity may be sought against the Underwriters pursuant to the foregoing paragraph, the Company or such person shall promptly notify the Representative in writing of the institution of such Proceeding and the Representative shall assume the defense of such Proceeding, including the employment of counsel reasonably satisfactory to such indemnified party and payment of all reasonable and documented fees and expenses; provided, however, that the omission to so notify the Representative shall not relieve the Underwriters from any liability which the Underwriters may have to the Company or any such person or otherwise. The Company or such person shall have the right to employ its own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of the Company or such person unless the employment of such counsel shall have been authorized in writing by the Representative in connection with the defense of such Proceeding or the Representative shall not have, within a reasonable period of time in light of the circumstances, employed counsel to have charge of the defense of such Proceeding or such indemnified party or parties shall have reasonably concluded that there may be defenses available to it or them which are different from or additional to or in conflict with those available to the Representative (in which case the Representative shall not have the right to direct the defense of such Proceeding on behalf of the

indemnified party or parties, but the Representative may employ counsel and participate in the defense thereof but the fees and expenses of such counsel shall be at the expense of the Representative), in any of which events such reasonable and documented fees and expenses shall be borne by the Representative and paid as incurred (it being understood, however, that the Underwriters shall not be liable for the fees and expenses of more than one separate counsel (in addition to any local counsel) in any one Proceeding or series of related Proceedings in the same jurisdiction representing the indemnified parties who are parties to such Proceeding). The Underwriters shall not be liable for any settlement of any such Proceeding effected without the written consent of the Representative but, if settled with the written consent of the Representative or if there be a final judgment for the plaintiff, the Underwriters agree to indemnify and hold harmless the Company and any such person from and against any loss or liability by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested the Underwriters to reimburse the indemnified party for reasonable and documented fees and expenses of counsel as contemplated by the second sentence of this paragraph, then the Underwriters agree that they shall be liable for any settlement of any Proceeding effected without the Representative's written consent if (i) such settlement is entered into more than 60 business days after receipt by the Representative of the aforesaid request, (ii) the Underwriters shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement and (iii) such indemnified party shall have given the Representative at least 30 days' prior notice of its intention to settle. The Representative shall not, without the prior written consent of the indemnified party, effect any settlement of any pending or threatened Proceeding in respect of which any indemnified party is a party and indemnity could have been sought hereunder by such indemnified party, unless such settlement includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such Proceeding and does not include any statement as to or an admission of fault, culpability or a failure to act, by or on behalf of such indemnified party.

(c) If the indemnification provided for in this Section 7 is unavailable to an indemnified party under subsections (a) and (b) of this Section 7 or is insufficient to hold an indemnified party harmless in respect of any losses, damages, expenses, liabilities or claims referred to therein, then each applicable indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, damages, expenses, liabilities or claims (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, from the offering of the Stock or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and of the Underwriters, on the other, in connection with the statements or omissions which resulted in such losses, damages, expenses, liabilities or claims, as well as any other relevant equitable considerations with respect to such offering. The relative benefits received by the Company, on the one hand, and the Underwriters, on the other, shall be deemed to be in the same respective proportions as the total proceeds from the offering (net of commissions paid hereunder but before deducting expenses) received by the Company, and the total commissions received by the Underwriters hereunder, bear to the aggregate public offering price of the Stock. The relative fault of the Company, on the one hand, and of the Underwriters, on the other,

shall be determined by reference to, among other things, whether the untrue statement or alleged untrue statement of a material fact or omission or alleged omission relates to information supplied by the Company or by the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The amount paid or payable by a party as a result of the losses, damages, expenses, liabilities and claims referred to in this subsection (c) shall be deemed to include any reasonable and documented legal or other fees or expenses reasonably incurred by such party in connection with investigating, preparing to defend or defending any Proceeding.

(d) The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 7 were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in subsection (c) above. Notwithstanding the provisions of this Section 7, each of the Underwriters shall not be required to contribute any amount in excess of commissions received by it under this Agreement. No person found guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

(e) The Company and the Underwriters agree promptly to notify each other of the commencement of any Proceeding against it and, in the case of the Company, against any of the Company's officers or directors in connection with the issuance and sale of the Stock, or in connection with the Registration Statement or the Prospectus; provided, that, the omission to so notify shall not relieve the Company or the Underwriters from any liability which such party may have to the Company or the Underwriters, as applicable, or any other person hereunder except to the extent the Company or the Underwriters, as applicable, was materially prejudiced by such omission, which shall include without limitation the loss of any material rights or defenses resulting therefrom.

8. *TERMINATION.* The obligations of the Underwriters hereunder may be terminated by the Representative, in its absolute discretion by notice given to the Company prior to delivery of and payment for the Firm Stock if, prior to that time, any of the events described in Sections 6(k), 6(l) or 6(m) have occurred or if the Underwriters shall decline to purchase the Stock for any reason permitted under this Agreement.

9. *REIMBURSEMENT OF UNDERWRITERS' EXPENSES.* Notwithstanding anything to the contrary in this Agreement, if (a) this Agreement shall have been terminated pursuant to Section 8 or 10, (b) the Company shall fail to tender the Stock for delivery to the Underwriters for any reason not permitted under this Agreement, (c) the Underwriters shall decline to purchase the Stock for any reason permitted under this Agreement or (d) the sale of the Stock is not consummated because any condition to the obligations of the Underwriters set forth herein is not satisfied or because of the refusal, inability or failure on the part of the Company to perform any agreement herein or to satisfy any condition or to comply with the provisions hereof, then in addition to the payment of amounts in accordance with Section 5, the Company shall reimburse the Underwriters for the documented fees and out-of-pocket expenses of Underwriters' counsel and for such other documented out-of-pocket expenses as shall have been reasonably incurred by them in connection with this Agreement and the proposed purchase of the Stock, including, without limitation, documented travel and lodging expenses of the Underwriters, and upon demand the

Company shall pay the full amount thereof to the Representative; *provided* that if this Agreement is terminated pursuant to Section 10 by reason of the default of one or more Underwriters, the Company shall not be required to reimburse any defaulting Underwriter on account of expenses to the extent incurred by such defaulting Underwriter; *provided, further* that the foregoing shall not limit any reimbursement obligation of the Company to any non-defaulting Underwriter under this Section 9.

10. *SUBSTITUTION OF UNDERWRITERS.* If any Underwriter or Underwriters shall default in its or their obligations to purchase shares of Stock hereunder on any Closing Date and the aggregate number of shares which such defaulting Underwriter or Underwriters agreed but failed to purchase does not exceed ten percent (10%) of the total number of shares to be purchased by all Underwriters on such Closing Date, the other Underwriters shall be obligated severally, in proportion to their respective commitments hereunder, to purchase the shares which such defaulting Underwriter or Underwriters agreed but failed to purchase on such Closing Date. If any Underwriter or Underwriters shall so default and the aggregate number of shares with respect to which such default or defaults occur is more than ten percent (10%) of the total number of shares to be purchased by all Underwriters on such Closing Date and arrangements satisfactory to the Representative and the Company for the purchase of such shares by other persons are not made within forty-eight (48) hours after such default, this Agreement shall terminate.

If the remaining Underwriters or substituted Underwriters are required hereby or agree to take up all or part of the shares of Stock of a defaulting Underwriter or Underwriters on such Closing Date as provided in this Section 10, (i) the Company shall have the right to postpone such Closing Date for a period of not more than five (5) full business days in order that the Company may effect whatever changes may thereby be made necessary in the Registration Statements or the Prospectus, or in any other documents or arrangements, and the Company agrees promptly to file any amendments to the Registration Statements or supplements to the Prospectus which may thereby be made necessary, and (ii) the respective numbers of shares to be purchased by the remaining Underwriters or substituted Underwriters shall be taken as the basis of their underwriting obligation for all purposes of this Agreement. Nothing herein contained shall relieve any defaulting Underwriter of its liability to the Company or the other Underwriters for damages occasioned by its default hereunder. Any termination of this Agreement pursuant to this Section 10 shall be without liability on the part of any non-defaulting Underwriter or the Company, except that the representations, warranties, covenants, indemnities, agreements and other statements set forth in Section 2, the obligations with respect to expenses to be paid or reimbursed to non-defaulting Underwriters pursuant to Sections 5 and 9 and the provisions of Section 7 and Sections 11 through 21, inclusive, shall not terminate and shall remain in full force and effect.

11. *ABSENCE OF FIDUCIARY RELATIONSHIP.* The Company acknowledges and agrees that:

(a) each Underwriter's responsibility to the Company is solely contractual in nature, the Representative have been retained solely to act as underwriters in connection with the sale of the Stock and no fiduciary, advisory or agency relationship between the Company and the Representative has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether the Representative has advised or is advising the Company on other matters;

(b) the price of the Stock set forth in this Agreement was established by the Company following discussions and arms-length negotiations with the Representative, and the Company is capable of evaluating and understanding, and understands and accepts, the terms, risks and conditions of the transactions contemplated by this Agreement;

(c) it has been advised that the Representative and its affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and that the Representative have no obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; and

(d) it waives, to the fullest extent permitted by law, any claims it may have against the Representative for breach of fiduciary duty or alleged breach of fiduciary duty and agrees that the Representative shall have no liability (whether direct or indirect) to the Company in respect of such a fiduciary duty claim or to any person asserting a fiduciary duty claim on behalf of or in right of the Company, including stockholders, employees or creditors of the Company.

12. *SUCCESSORS; PERSONS ENTITLED TO BENEFIT OF AGREEMENT.* This Agreement shall inure to the benefit of and be binding upon the several Underwriters, the Company and their respective successors and assigns. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, other than the persons mentioned in the preceding sentence, any legal or equitable right, remedy or claim under or in respect of this Agreement, or any provisions herein contained, this Agreement and all conditions and provisions hereof being intended to be and being for the sole and exclusive benefit of such persons and for the benefit of no other person; except that the representations, warranties, covenants, agreements and indemnities of the Company contained in this Agreement shall also be for the benefit of the Underwriter Indemnified Parties, and the indemnities of the several Underwriters shall be for the benefit of the Company Indemnified Parties. It is understood that each Underwriter's responsibility to the Company is solely contractual in nature and the Underwriters do not owe the Company, or any other party, any fiduciary duty as a result of this Agreement. No purchaser of any of the Stock from any Underwriter shall be deemed to be a successor or assign by reason merely of such purchase.

13. *SURVIVAL OF INDEMNITIES, REPRESENTATIONS, WARRANTIES, ETC.* The respective indemnities, covenants, agreements, representations, warranties and other statements of the Company and the several Underwriters, as set forth in this Agreement or made by them respectively, pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation made by or on behalf of any Underwriter, the Company or any person controlling any of them and shall survive delivery of and payment for the Stock. Notwithstanding any termination of this Agreement, including without limitation any termination pursuant to Section 8 or Section 10, the indemnities, covenants, agreements, representations, warranties and other statements forth in Sections 2, 5, 7 and 9 and Sections 11 through 21, inclusive, of this Agreement shall not terminate and shall remain in full force and effect at all times.

14. *NOTICES.* All statements, requests, notices and agreements hereunder shall be in writing, and:

(a) if to the Underwriters, shall be delivered or sent by mail, telex, facsimile transmission or email to RBC Capital Markets, LLC, 3 World Financial Center, 200 Vesey Street, 8th Floor New York, New York 10281, Attention: DCM Transaction Management, Fax: 212-225-6550, with a copy (which shall not constitute notice) to

Morgan, Lewis & Bockius LLP, 101 Park Avenue, New York, New York, 10178, Attention: David W. Pollak.

(b) if to the Company shall be delivered or sent by mail, telex, facsimile transmission or email to KemPharm, Inc., 1180 Celebration Boulevard, Suite 103, Celebration, Florida 34747, Attention: R. LaDuane Clifton, email: lclifton@kempharm.com, with a copy (which shall not constitute notice) to Cooley LLP, 1299 Pennsylvania Avenue, NW, Suite 700, Washington, DC 20004, Attention: Brent Siler;

provided, however, that any notice to an Underwriter pursuant to Section 7 shall be delivered or sent by mail, or facsimile transmission to such Underwriter at its address set forth in its acceptance telex to the Representative, which address will be supplied to any other party hereto by the Representative upon request. Any such statements, requests, notices or agreements shall take effect at the time of receipt thereof.

15. *DEFINITION OF CERTAIN TERMS.* For purposes of this Agreement, (a) “**business day**” means any day on which the New York Stock Exchange, Inc. is open for trading and not a federal holiday and (b) “**subsidiary**” and “**affiliate**” have the respective meanings set forth in Rule 405 of the Rules and Regulations.

16. *GOVERNING LAW.* **This Agreement shall be governed by and construed in accordance with the laws of the State of New York, including without limitation Section 5-1401 of the New York General Obligations Law.** The Company irrevocably (a) submits to the non-exclusive jurisdiction of the Federal and state courts in the Borough of Manhattan in The City of New York for the purpose of any suit, action or other proceeding arising out of this Agreement or the transactions contemplated by this Agreement, the Registration Statements and any Preliminary Prospectus or the Prospectus, (b) agrees that all claims in respect of any such suit, action or proceeding may be heard and determined by any such court, (c) waives to the fullest extent permitted by applicable law, any immunity from the jurisdiction of any such court or from any legal process, (d) agrees not to commence any such suit, action or proceeding other than in such courts, and (e) waives, to the fullest extent permitted by applicable law, any claim that any such suit, action or proceeding is brought in an inconvenient forum.

17. *UNDERWRITERS' INFORMATION.* The parties hereto acknowledge and agree that, for all purposes of this Agreement, the “**Underwriters' Information**” consists solely of the following information in the Prospectus: the second sentence of the third paragraph in the section of the Prospectus entitled “Underwriting”.

18. *AUTHORITY OF THE REPRESENTATIVE.* In connection with this Agreement, the Representative will act for and on behalf of the several Underwriters, and any action taken under this Agreement by the Representative, will be binding on all the Underwriters.

19. *PARTIAL UNENFORCEABILITY.* The invalidity or unenforceability of any section, paragraph, clause or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph, clause or provision hereof. If any section, paragraph, clause or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

20. *GENERAL.* This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. In this Agreement, the

masculine, feminine and neuter genders and the singular and the plural include one another. The section headings in this Agreement are for the convenience of the parties only and will not affect the construction or interpretation of this Agreement. This Agreement may be amended or modified, and the observance of any term of this Agreement may be waived, only by a writing signed by the Company and the Representative.

21. *COUNTERPARTS*. This Agreement may be signed in any number of counterparts, including by facsimile or other electronic transmission, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

[Remainder of Page Intentionally Left Blank]

If the foregoing is in accordance with your understanding of the agreement between the Company and the several Underwriters, kindly indicate your acceptance in the space provided for that purpose below.

Very truly yours,

KEMPHARM, INC.

By: /s/ R. LaDuane Clifton

Name: R. LaDuane Clifton

Title: Chief Financial Officer

Accepted as of the date first above written:

RBC CAPITAL MARKETS, LLC
Acting on its own behalf
and as Representative of several
Underwriters referred to in the
foregoing Agreement.

By: RBC CAPITAL MARKETS, LLC

By: /s/ Jennifer Caruso

Name: Jennifer Caruso

Title: Managing Director

[Signature Page to Underwriting Agreement]

SCHEDULE A

<u>Name</u>	<u>Number of Shares of Firm Stock to be Purchased</u>	<u>Number of Shares of Optional Stock to be Purchased</u>
RBC Capital Markets, LLC	5,000,002	750,000
Oppenheimer & Co. Inc.	1,666,666	250,000
Janney Montgomery Scott LLC	833,333	125,000
Roth Capital Partners, LLC	833,333	125,000
Total	8,333,334	1,250,000

SCHEDULE B

Pricing Information

Firm Stock to be Sold: 8,333,334 shares

Offering Price: \$3.00 per share

Underwriting Discounts and Commissions: 6%

Gross Proceeds to the Company: \$25,000,002

Estimated Net Proceeds to the Company (after underwriting discounts and commissions, but before transaction expenses): \$23,500,001.88

SCHEDULE C

None.

SCHEDULE D

Travis C. Mickle, Ph.D.
Christal M.M. Mickle
Travis C. Mickle 2015 Dynasty Trust dated 7/21/2015
Christal M.M. Mickle 2015 Gift Trust dated 7/21/2015
TCM Family Trust u/d/p April 30, 2009
Mickle Family Trust u/d/p April 30, 2009
Mickle Investments LLC

Sven Guenther, Ph.D.

Richard W. Pascoe

Matthew R. Plooster
TD Ameritrade Clearing Inc. Custodian FBO Matthew Ryan Plooster Roth IRA
Bridgepoint Investment Partners I, LLLP

Joseph B. Saluri

Danny L. Thompson
Garrett Bancshares, LTD

David S. Tiemey

R. LaDuane Clifton

Gordon K. Johnson

Exhibit I – Form of Lock-Up Agreement

RBC CAPITAL MARKETS, LLC

As Representative of the several Underwriters

c/o RBC Capital Markets, LLC

200 Vesey Street, 8th Floor

New York, New York 10281

Re: KemPharm, Inc. – Registration Statement on Form S-3 for Shares of Common Stock

Dear Sirs:

This Agreement is being delivered to you in connection with the proposed Underwriting Agreement (the “Underwriting Agreement”) between KemPharm, Inc., a Delaware corporation (the “Company”), and RBC Capital Markets, LLC (“RBC”), as representative of a group of underwriters named therein (collectively, the “Underwriters”), and the other parties thereto (if any), relating to the proposed public offering (the “Offering”) of shares of the common stock, par value \$0.0001 per share (the “Common Stock”), of the Company pursuant to a registration statement (the “Registration Statement”) filed or to be filed with the Securities and Exchange Commission (the “SEC”).

In order to induce you and the other Underwriters to enter into the Underwriting Agreement, and in light of the benefits that the Offering will confer upon the undersigned in its capacity as a securityholder and/or an officer, director or employee of the Company, and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agrees with each Underwriter that, during the period beginning on the date hereof through and including the date that is the 90th day after the date of the Underwriting Agreement (the “Lock-Up Period”), the undersigned will not, without the prior written consent of RBC, directly or indirectly, (i) lend, offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, directly or indirectly, any shares of Common Stock (including, without limitation, Common Stock which may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations promulgated under the Securities Exchange Act of 1934, as the same may be amended or supplemented from time to time (the “Exchange Act”) (such shares, the “Beneficially Owned Shares”)) or securities convertible into or exercisable or exchangeable for Common Stock, (ii) enter into any swap, hedge or similar agreement or arrangement that transfers in whole or in part, the economic risk of ownership of the Beneficially Owned Shares or securities convertible into or exercisable or exchangeable for Common Stock, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition, (iii) engage in any short selling of the Common Stock, or (iv) publicly announce an intention to effect any transaction specified in clause (i), (ii) or (iii).

The restrictions set forth in the immediately preceding paragraph shall not apply to:

(1) if the undersigned is a natural person, any transfers made by the undersigned (a) as a bona fide gift to any member of the immediate family (as defined below) of the undersigned or to a trust the direct or indirect beneficiaries of which are the undersigned or members of the undersigned's immediate family, (b) by will or intestate succession upon the death of the undersigned or by operation of law, such as pursuant to a qualified domestic order or in connection with a divorce settlement, or (c) as a bona fide gift to a charity or educational institution,

(2) if the undersigned is a corporation, partnership, limited liability company or other business entity, any transfers to any stockholder, limited partner, general partner or member of, or owner of a similar equity interest in, the undersigned, as the case may be, if, in any such case, such transfer is not for value,

(3) if the undersigned is a trust, any transfers to a beneficiary of such trust or to the estate of a beneficiary of such trust if, in any such case, such transfer is not for value,

(4) exercises of (a) stock options granted pursuant to an equity incentive or other plan described in the Registration Statement, (b) warrants to purchase shares of Common Stock or other securities or (c) other securities convertible into or exercisable or exchangeable for Common Stock or other securities (including, in each such case, by cashless exercise to the extent permitted by the instruments representing such stock options, warrants or other securities), provided that in any such case the securities issued upon exercise shall be subject to the provisions of this Agreement,

(5) transfers of shares of Common Stock or other securities to the Company in connection with the vesting or exercise of any equity awards granted pursuant to an equity incentive or other plan described in the Registration Statement and held by the undersigned to the extent as may be necessary to satisfy tax withholding obligations pursuant to the Company's equity incentive or other plans, provided, that in the case of any such transfer no filing under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of shares of Common Stock shall be required, and no such filing shall be made voluntarily, in each case, prior to the expiration of the Lock-Up Period,

(6) the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of Common Stock, provided that such plan does not provide for the transfer of Common Stock during the Lock-Up Period, and provided further that no public announcement of the establishment or existence of such plan, and no filing with the SEC or any other regulatory authority in respect thereof, shall be required, and no such public announcement or filing shall be made voluntarily, in each case, prior to the expiration of the Lock-Up Period,

(7) (a) transactions relating to securities acquired in open market transactions after the date of the Offering or (b) if the undersigned is not an officer or director of the Company, transfers or other dispositions of shares of Common Stock purchased by the undersigned in the Offering; provided, that in the case of any such transactions, transfers or dispositions, no public announcement thereof, and no filing with the SEC or any other regulatory authority in respect thereof, shall be required, and no such public announcement or filing shall be made voluntarily, in each case, prior to the expiration of the Lock-Up Period, and

(8) any transfers to the Underwriters pursuant to the Underwriting Agreement;

provided, however, that in the case of any transfer described in clause (1), (2) and (3) above, it shall be a condition to the transfer that (A) the transferee executes and delivers to RBC, acting on behalf of the Underwriters, not later than one business day prior to such transfer, a written agreement, in substantially the form of this Agreement (it being understood that any references to “immediate family” in the agreement executed by such transferee shall expressly refer only to the immediate family of the undersigned and not to the immediate family of the transferee) and otherwise satisfactory in form and substance to RBC, and (B) if the undersigned is required to file a report under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of Common Stock or Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Stock or Beneficially Owned Shares during the Lock-Up Period, the undersigned shall include a statement in such report to the effect that, in the case of any transfer pursuant to clause (1) above, such transfer is being made as a gift, by will or intestate succession or by operation of law or, in the case of any transfer pursuant to clause (2) above, such transfer is being made to a stockholder, limited partner, general partner or member of, or owner of a similar equity interest in, the undersigned and is not a transfer for value or, in the case of any transfer pursuant to clause (3) above, such transfer is being made to a trustee or beneficiary of such trust or to the estate of a beneficiary of such trust and such transfer is not for value. For purposes of this paragraph, “immediate family” shall mean a spouse, child, grandchild or other lineal descendant (including by adoption), father, mother, brother or sister of the undersigned; and “affiliate” shall have the meaning set forth in Rule 405 under the Securities Act of 1933, as amended (the “Securities Act”).

The undersigned further agrees that (i) it will not, during the Lock-Up Period, make any demand or request for or exercise any right with respect to the registration under the Securities Act of any shares of Common Stock or other Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Stock or other Beneficially Owned Shares, and (ii) the Company may, with respect to any Common Stock or other Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Stock or other Beneficially Owned Shares owned or held (of record or beneficially) by the undersigned, cause the transfer agent or other registrar to enter stop transfer instructions and implement stop transfer procedures with respect to such securities during the Lock-Up Period. In addition, the undersigned hereby waives (on behalf of the undersigned and all other securityholders of the Company), from the date hereof until the expiration of the Lock-up Period, any and all rights, if any, to request or demand registration, including any right to participate in any Company registration (including without limitation in connection with the Offering), pursuant to the Securities Act of any shares of Common Stock or other Beneficially Owned Shares. The undersigned hereby agrees that, to the extent that the terms of this Agreement conflict with or are in any way inconsistent with any investor rights agreement, registration rights agreement, market standoff agreement or other lock-up agreement related to shares of Common Stock or other Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Stock or other Beneficially Owned Shares to which the undersigned may be party, this Agreement supersedes such investor rights agreement, registration rights agreement, market standoff agreement or other lock-up agreement.

If the undersigned is an officer or director of the Company, RBC agrees that, at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of shares of Common Stock, RBC will notify the Company of the impending release or waiver. The provisions of this paragraph will not apply if (a) the release or waiver is effected solely to permit a transfer not for consideration and (b) the transferee has agreed in writing to be bound by the same terms described in this letter to the extent and for the duration that such terms remain in effect at the time of the transfer.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Agreement and that this Agreement has been duly authorized (if the undersigned is not a natural person), executed and delivered by the undersigned and is a valid and binding agreement of the undersigned. The undersigned understands that the Company and the Underwriters are relying on this Agreement in proceeding towards consummation of the Offering. This Agreement and all authority herein conferred are irrevocable and shall survive the death or incapacity of the undersigned (if a natural person) and shall be binding upon the heirs, personal representatives, successors and assigns of the undersigned.

The undersigned acknowledges and agrees that whether or not the Offering actually occurs depends on a number of factors, including market conditions.

If (i) the Underwriting Agreement terminates or is terminated (other than the provisions thereof which survive termination) prior to the payment for and delivery of the shares proposed for sale under the Registration Statement, (ii) RBC, on the one hand, or the Company, on the other hand, has advised in writing, prior to the execution of the Underwriting Agreement, that it has determined not to proceed with the Offering, (iii) the Company notifies the undersigned in writing that it does not intend to proceed with the Offering, withdraws the Registration Statement or deregisters all of the shares covered by the Registration Statement, or (iv) the Underwriting Agreement has not been executed on or before December 31, 2018, provided that the Company may by written notice to the undersigned prior to December 31, 2018 extend such date for a period of up to three additional months, then this Agreement shall terminate immediately upon such date and be of no further force or effect and the undersigned shall automatically be released from all of his, her or its obligations under this Agreement.

The undersigned hereby consents to receipt of this Agreement in electronic form and understands and agrees that execution and delivery of this Agreement by facsimile transmission, electronic mail or other electronic transmission is legal, valid and binding for all purposes. This Agreement shall be governed by and construed in accordance with the laws of the State of New York.

[signature page follows]

Very truly yours,

(Name of Stockholder - Please Print)

(Signature)

(Name of Signatory if Stockholder is an entity - Please Print)

Address: _____

KEMPHARM, INC.

**CERTIFICATE OF DESIGNATION OF PREFERENCES,
RIGHTS AND LIMITATIONS
OF
SERIES A CONVERTIBLE PREFERRED STOCK**

PURSUANT TO SECTION 151(g) OF THE
DELAWARE GENERAL CORPORATION LAW

KEMPHARM, INC., a Delaware corporation (the "**Corporation**"), in accordance with the provisions of Section 103 of the Delaware General Corporation Law (the "**DGCL**"), does hereby certify that, in accordance with Section 151 of the DGCL, the following resolution was duly adopted by the Board of Directors of the Corporation (the "**Board of Directors**") on October 5, 2018:

RESOLVED, that the Board of Directors, pursuant to authority expressly vested in it by the provisions of the Amended and Restated Certificate of Incorporation (as amended or restated from time to time, the "**Certificate of Incorporation**") of the Corporation, hereby authorizes the issuance of a series of Preferred Stock designated as the Series A Convertible Preferred Stock, par value \$0.0001 per share, of the Corporation and hereby fixes the designation, number of shares, powers, preferences, rights, qualifications, limitations and restrictions thereof (in addition to any provisions set forth in the Certificate of Incorporation of the Corporation which are applicable to the Preferred Stock of all classes and series) as follows:

SERIES A CONVERTIBLE PREFERRED STOCK

Section 1. Definitions. For the purposes hereof, the following terms shall have the following meanings:

"**Affiliate**" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 144 under the Securities Act. 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.

"**Alternate Consideration**" shall have the meaning set forth in Section 7(b).

"**Beneficial Ownership Limitation**" shall have the meaning set forth in Section 6(c).

"**Board of Directors**" shall have the meaning set forth in the preamble.

"**Business Day**" means any day except Saturday, Sunday, any day which shall be a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

“**Buy-In**” shall have the meaning set forth in Section 6(d)(iii).

“**Certificate of Designation**” shall mean this Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock.

“**Certificate of Incorporation**” shall have the meaning set forth in the preamble.

“**Closing Sale Price**” means, for any security as of any date, the last closing trade price for such security prior to 4:00 p.m., New York City time, on the principal securities exchange or trading market where such security is listed or traded, as reported by Bloomberg, L.P. (or an equivalent, reliable reporting service mutually acceptable to and hereafter designated by Holders of a majority of the then outstanding Series A Preferred Stock and the Corporation), or if no last closing trade price is reported for such security by Bloomberg, the last trade price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, L.P., or, if no last trade price is reported for such security by Bloomberg, L.P., the average of the bid prices of any market makers for such security that are listed or quoted on the OTC Bulletin Board, the OTCQX Market or the OTCQB Market or in the pink market of OTC Markets Group (or, in each case, any successor to such market). If the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Sale Price of such security on such date shall be the fair market value mutually determined by the Corporation and the holders of a majority of the then outstanding shares of Series A Preferred Stock. All such determinations to be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during the applicable calculation period.

“**Commission**” means the Securities and Exchange Commission.

“**Common Stock**” means the Corporation’s common stock, par value \$0.0001 per share, and stock of any other class of securities into which such securities may hereafter be reclassified or changed into.

“**Common Stock Equivalents**” means any securities of the Corporation or the Subsidiaries that would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“**Conversion Date**” shall have the meaning set forth in Section 6(a).

“**Conversion Price**” means \$3.00 per share.

“**Conversion Ratio**” shall have the meaning set forth in Section 6(b).

“**Conversion Shares**” means, collectively, the shares of Common Stock issuable upon conversion of the shares of Series A Preferred Stock in accordance with the terms hereof.

“**Daily Failure Amount**” means the product of (x) 0.005 multiplied by (y) the Closing Sale Price of the Common Stock on the applicable Share Delivery Date.

“**DGCL**” shall have the meaning set forth in the preamble.

“**Distributions**” shall have the meaning set forth in Section 5(a).

“**DTC**” shall have the meaning set forth in Section 6(a).

“**DWAC**” shall have the meaning set forth in Section 6(a).

“**DWAC Delivery**” shall have the meaning set forth in Section 6(a).

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“**Fundamental Transaction**” shall have the meaning set forth in Section 7(b).

“**Holder**” and “**Holders**” shall have the meaning given such terms in Section 2(a).

“**Junior Securities**” shall have the meaning set forth in Section 5(a).

“**Notice of Conversion**” shall have the meaning set forth in Section 6(a).

“**Parity Securities**” shall have the meaning set forth in Section 5(a).

“**Person**” means any individual, sole proprietorship, partnership (general or limited), limited liability company, joint venture, company, trust (statutory or common law), unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or governmental or regulatory agency.

“**Securities Act**” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“**Senior Securities**” shall have the meaning set forth in Section 5(a).

“**Series A Liquidation Amount**” means, with respect to each share of Series A Preferred Stock, an amount equal to \$0.0001.

“**Series A Preferred Stock**” shall have the meaning set forth in Section 2(a).

“**Series A Preferred Stock Register**” shall have the meaning set forth in Section 2(b).

“**Share Delivery Date**” shall have the meaning set forth in Section 6(d)(i).

“**Standard Settlement Period**” means the standard settlement period for equity trades effected by U.S. broker-dealers, expressed in a number of Trading Days, as in effect on the applicable date (which, as of October 5, 2018, is two (2) Trading Days).

“**Stated Value**” means \$1,000.

“**Trading Day**” means a day on which the Common Stock is traded for any period on the principal securities exchange or other securities market on which the Common Stock is then being traded.

Section 2. Designation, Amount and Par Value; Assignment.

a) The series of preferred stock designated by this Certificate of Designation shall be designated as the Corporation’s Series A Convertible Preferred Stock (the “**Series A Preferred Stock**”) and the number of shares so designated shall be 9,578 (which shall not be subject to increase (whether by amendment, merger, consolidation or otherwise) without the written consent of the holders of a majority of the then outstanding shares of Series A Preferred Stock (each holder of any outstanding shares of Series A Preferred Stock, a “**Holder**” and collectively, the “**Holders**”)) and shall be designated from the 10,000,000 shares of Preferred Stock authorized to be issued under the Certificate of Incorporation. Each share of Series A Preferred Stock shall have a par value of \$0.0001 per share.

b) The Corporation shall register shares of the Series A Preferred Stock, upon records to be maintained by the Corporation for that purpose (the “**Series A Preferred Stock Register**”), in the name of the Holders thereof from time to time. The Corporation may deem and treat the registered Holder of shares of Series A Preferred Stock as the absolute owner thereof for the purpose of any conversion thereof and for all other purposes. The Corporation shall register the transfer of any shares of Series A Preferred Stock in the Series A Preferred Stock Register, upon surrender of the certificates evidencing such shares to be transferred, duly endorsed by the Holder thereof, to the Corporation at its address specified herein. Upon any such registration or transfer, a new certificate evidencing the shares of Series A Preferred Stock so transferred shall be issued to the transferee and a new certificate evidencing the remaining portion of the shares not so transferred, if any, shall be issued to the transferring Holder, in each case, within three Business Days. The shares of Series A Preferred Stock and the rights evidenced hereby and thereby shall inure to the benefit of and be binding upon the successors and assigns of the Holder. The provisions of this Certificate of Designation are intended to be for the benefit of all Holders from time to time and shall be enforceable by any such Holder.

Section 3. Dividends.

a) Any dividends or distributions declared by the Board of Directors out of funds legally available therefor shall be distributed among the holders of Common Stock and the Series A Preferred Stock on a pro rata basis based on the number of shares of Common Stock held by each such holder (determined on an as-converted to Common Stock basis based on the then-effective applicable Conversion Price, and without giving effect to the Beneficial Ownership Limitation) as of the record date fixed for determining those entitled to receive such distribution.

b) In the event the Corporation shall declare a distribution on the Common Stock payable in securities of other Persons, evidences of indebtedness issued by the Corporation or other Persons, or other assets (excluding cash dividends distributed in accordance with Section 3(a)), including options or rights to purchase any such securities or evidences of indebtedness or securities convertible into any of the foregoing, then, in each such case the holders of the Series A Preferred Stock shall be entitled to a proportionate share of any such distribution pursuant to this Section 3(b) as though they were the holders of the number of shares of Common Stock of the Corporation into which their shares of Series A Preferred Stock are convertible based on the then-effective applicable Conversion Price (without giving effect to the Beneficial Ownership Limitation) as of the record date fixed for the determination of the holders of Common Stock of the Corporation entitled to receive such distribution. Notwithstanding anything herein to the contrary, any distribution on the Common Stock in the form of Common Stock or any other Common Stock Equivalents shall be subject to the terms of Section 7(a) and not this Section 3(b).

Section 4. Voting Rights. Except as otherwise provided herein or as otherwise required by the DGCL, the Series A Preferred Stock shall have no voting rights. However, as long as any shares of Series A Preferred Stock are outstanding, without the affirmative vote or written consent of the Holders of a majority of the then outstanding shares of the Series A Preferred Stock, the Corporation shall not, directly or indirectly, whether by or through any subsidiary and whether by merger, consolidation or otherwise, (a) alter or change, directly or indirectly, the powers, preferences or rights of the Series A Preferred Stock so as to affect them adversely or otherwise alter or amend this Certificate of Designation; provided that this clause (a) shall not require the affirmative vote or written consent of the Holders of a majority of the then outstanding shares of the Series A Preferred Stock as to the designation or issuance of any Senior Securities, Parity Securities or Junior Securities, (b) increase the number of authorized shares of Series A Preferred Stock, or (c) amend, modify or repeal any provision of the Certificate of Incorporation or the Bylaws in a manner that would adversely affect or otherwise impair the rights of the Holders pursuant to this Certificate of Designation relative to the holders of Common Stock. Notwithstanding any provision of the Certificate of Incorporation or the Corporation's bylaws to the contrary, including without limitation Section D of Article V of the Certificate of Incorporation, any vote of the holders of Series A Preferred Stock required under the terms of the DGCL, this Certificate of Designation or otherwise may be taken by written consent or electronic transmission.

Section 5. Rank; Liquidation.

a) Rank. The Series A Preferred Stock shall rank (i) senior to all of the Common Stock; (ii) senior to any class or series of capital stock of the Corporation hereafter created specifically ranking by its terms junior to any Series A Preferred Stock ("**Junior Securities**"); (iii) on parity with any class or series of capital stock of the Corporation created specifically ranking by its terms on parity with the Series A Preferred Stock ("**Parity Securities**"); and (iv) junior to any class or series of capital stock of the Corporation hereafter created specifically ranking by its terms senior to any Series A Preferred Stock ("**Senior Securities**"), in each case, as to dividends or distributions of assets upon liquidation, dissolution or winding up of the Corporation, whether voluntarily or involuntarily (all such distributions being referred to collectively as "**Distributions**").

b) Liquidation, Dissolution, or Winding Up. Subject to any superior liquidation rights of the holders of any Senior Securities of the Corporation, upon any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, each Holder shall be entitled to be paid out of the assets of the Corporation legally available for distribution to stockholders, prior and in preference to any distribution of any of the assets or surplus funds of the Corporation to the holders of the Common Stock and Junior Securities and *pari passu* with any distribution to the holders of Parity Securities, an amount equal to the Series A Liquidation Amount for each share of Series A Preferred Stock held by such Holder, plus an amount equal to any dividends declared but unpaid thereon, before any payments shall be made or any assets distributed to holders of any class of Common Stock or Junior Securities, and thereafter, the Holders of the shares of Series A Preferred Stock shall share ratably in any distributions and payments of any remaining assets of the Corporation, on an as converted basis (based on the then effective Conversion Price and without giving effect to any limitations on conversion set forth herein), with the holders of Common Stock and with the holders of shares of any other class or series of capital stock of the Corporation entitled to share in such remaining assets of the Corporation on an as converted to Common Stock basis.

Section 6. Conversion.

a) Conversions at Option of Holder. Each share of Series A Preferred Stock shall be convertible, at any time and from time to time from and after the date of issuance, at the option of the Holder thereof, into a number of shares of Common Stock equal to the Conversion Ratio. Holders shall effect conversions by providing the Corporation with the form of conversion notice attached hereto as Annex A (a "Notice of Conversion") duly completed and executed. The Notice of Conversion may specify, at the Holder's election, whether the applicable Conversion Shares shall be credited to the account of the Holder's prime broker with Depository Trust Corporation ("DTC") through its Deposit/Withdrawal At Custodian ("DWAC") system (a "DWAC Delivery"). Other than in the case of a conversion in connection with a Fundamental Transaction, the Notice of Conversion must specify at least a number of Conversion Shares equal to the lesser of (x) 1,000 shares (such number subject to appropriate adjustment following the occurrence of an event specified in Section 7(a) hereof) and (y) the number of Conversion Shares issuable upon conversion of all shares of Series A Preferred Stock then held by the Holder. The "Conversion Date," or the date on which a conversion shall be deemed effective, shall be defined as the Trading Day that the Notice of Conversion, completed and executed, is sent by electronic mail or facsimile to, and received during regular business hours by, the Corporation. The calculations and entries set forth in the Notice of Conversion shall control in the absence of verifiable or mathematical error. Shares of Series A Preferred Stock converted into Common Stock in accordance with the terms hereof shall be canceled and shall not be reissued. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender the certificate(s) representing the Series A Preferred Stock to the Corporation until all shares of Series A Preferred Stock represented by such certificate(s) have been converted in full, in which case the Holder shall surrender such certificate(s) to the Corporation for cancellation within three (3) Trading Days of the date the final Notice of Conversion is delivered to the

Corporation. Execution and delivery of a Notice of Conversion with respect to a partial conversion shall have the same effect as cancellation of the original certificate(s) representing such shares of Series A Preferred Stock and issuance of a certificate representing such remaining shares of Series A Preferred Stock. In accordance with the preceding sentence, upon the written request of the Holder and the surrender of certificate(s) representing Series A Preferred Stock, the Corporation shall, within three (3) Trading Days of such request, deliver to the Holder certificate(s) (as specified by the Holder in such request) representing such remaining Series A Preferred Stock.

b) Conversion Ratio. The “**Conversion Ratio**” for each share of Series A Preferred Stock shall be equal to the Stated Value divided by the Conversion Price (as in effect on the applicable Conversion Date).

c) Beneficial Ownership Limitation. Notwithstanding anything herein to the contrary, but subject to the last sentence of this Section 6(c), the Corporation shall not effect any conversion of the Series A Preferred Stock, and a Holder shall not have the right to convert any portion of the Series A Preferred Stock, to the extent that, after giving effect to an attempted conversion set forth on the applicable Notice of Conversion, such Holder (together with such Holder’s Affiliates, and any other Person whose beneficial ownership of Common Stock would be aggregated with the Holder’s for purposes of Section 13(d) of the Exchange Act and the applicable regulations of the Commission, including any “group” of which the Holder is a member) would beneficially own a number of shares of Common Stock in excess of the Beneficial Ownership Limitation. For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by such Holder and its Affiliates shall include the number of shares of Common Stock issuable upon conversion of the Series A Preferred Stock subject to the Notice of Conversion with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which are issuable upon (A) conversion of the remaining, unconverted Series A Preferred Stock beneficially owned by such Holder or any of its Affiliates, and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation subject to a limitation on conversion or exercise analogous to the limitation contained herein (including any warrants) beneficially owned by such Holder or any of its Affiliates. Except as set forth in the preceding sentence, for purposes of this Section 6(c), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. In addition, a determination as to any “group” status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 6(c), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as stated in the Corporation’s most recent quarterly or annual report filed with the Commission, or any current report filed by the Corporation with the Commission subsequent thereto. Upon the written request of a Holder (which may be via electronic mail), the Corporation shall within two (2) Trading Days following such request, confirm in writing via electronic mail to such Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to any actual conversion or exercise of securities of the Corporation, including Series A Preferred Stock, by such Holder or its Affiliates since the date as of which such number of outstanding shares of Common Stock was last publicly reported. The “**Beneficial Ownership Limitation**” shall be 4.985% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon conversion of Series A Preferred Stock held by the applicable Holder.

d) Mechanics of Conversion

i. Delivery of Certificate or Electronic Issuance Upon Conversion. Not later than the earlier of two (2) Trading Days and the number of Trading Days constituting the Standard Settlement Period after the applicable Conversion Date (such earlier date, the “**Share Delivery Date**”), the Corporation shall (a) deliver, or cause to be delivered, to the converting Holder a certificate or certificates representing the number of Conversion Shares being acquired upon the conversion of shares of Series A Preferred Stock or (b) in the case of a DWAC Delivery, electronically transfer such Conversion Shares by crediting the account of the Holder’s prime broker with DTC through its DWAC system. If in the case of any Notice of Conversion such certificate or certificates are not delivered to or as directed by or, in the case of a DWAC Delivery, such shares are not electronically delivered to or as directed by, the applicable Holder by the Share Delivery Date, the applicable Holder shall be entitled to elect to rescind such Notice of Conversion by written notice to the Corporation at any time on or before its receipt of such certificate or certificates for Conversion Shares or electronic receipt of such shares, as applicable, in which event the Corporation shall promptly return to such Holder any original Series A Preferred Stock certificate delivered to the Corporation and such Holder shall promptly return to the Corporation any Common Stock certificates or otherwise direct the return of any shares of Common Stock delivered to the Holder through the DWAC system, representing the shares of Series A Preferred Stock unsuccessfully tendered for conversion to the Corporation; provided that the liquidated damages described in Section 6(d)(ii) shall be payable through the date such notice of rescission is given to the Corporation.

ii. Obligation Absolute; Partial Liquidated Damages. Subject to Section 6(c) hereof and subject to Holder’s right to rescind a Notice of Conversion pursuant to Section 6(d)(i) above, the Corporation’s obligation to issue and deliver the Conversion Shares upon conversion of Series A Preferred Stock in accordance with the terms hereof is absolute and unconditional, irrespective of any action or inaction by a Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by such Holder or any other Person of any obligation to the Corporation or any violation or alleged violation of law by such Holder or any other Person, and irrespective of any other circumstance which might otherwise limit such obligation of the Corporation to such Holder in connection with the issuance of such Conversion Shares. Subject to Section 6(c) hereof and subject to Holder’s right to rescind a Notice of Conversion pursuant to Section 6(d)(i) above, in the event a Holder shall elect to convert any or all of its Series A Preferred Stock, the Corporation may not refuse conversion based on any claim that such Holder or anyone associated or affiliated with such Holder has been engaged in any

violation of law, agreement or for any other reason, unless an injunction from a court, on notice to Holder, restraining and/or enjoining conversion of all or part of the Series A Preferred Stock of such Holder shall have been sought and obtained, and the Corporation posts a surety bond for the benefit of such Holder in the amount of 150% of the value of the Conversion Shares into which would be converted the Series A Preferred Stock which is subject to the injunction, which bond shall remain in effect until the completion of arbitration/litigation of the underlying dispute and the proceeds of which shall be payable to such Holder to the extent it obtains judgment. In the absence of such injunction, the Corporation shall, subject to Section 6(c) hereof and subject to Holder's right to rescind a Notice of Conversion pursuant to Section 6(d)(i) above, issue Conversion Shares upon a properly noticed conversion. If the Corporation fails to deliver to a Holder such certificate or certificates, or electronically deliver such shares in the case of a DWAC Delivery, pursuant to Section 6(d)(i) on or prior to the Share Delivery Date applicable to such conversion, the Corporation shall pay to such Holder, in cash, as partial liquidated damages and not as a penalty, an amount equal to the product of (x) the number of Conversion Shares issuable by the Corporation on such Share Delivery Date, (y) an amount equal to the Daily Failure Amount and (z) the number of Trading Days after the Share Delivery Date that such certificates have not been delivered, or, in the case of a DWAC Delivery, such shares have not been electronically delivered; provided that the Holder shall have no right to any such liquidated damages hereunder if the failure of the Corporation to deliver such Conversion Shares is a failure caused by incorrect or incomplete information provided by Holder to the Corporation; provided, further, that the Corporation shall notify a Holder as promptly as possible after the Corporation becomes aware of the fact that information provided by such Holder to the Corporation is incorrect or incomplete. Any such amount shall be paid on or before the fifth (5th) Trading Day of each month following a month in which such amount accrued. Nothing herein shall limit a Holder's right to pursue actual damages for the Corporation's failure to deliver Conversion Shares within the period specified herein, and such Holder shall have the right to pursue all remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief. The exercise of any such rights shall not prohibit a Holder from seeking to enforce damages pursuant to any other Section hereof or under applicable law.

iii. Compensation for Buy-In on Failure to Timely Deliver Certificates Upon Conversion. If the Corporation fails to deliver to a Holder a certificate or certificates representing Conversion Shares or to effect a DWAC Delivery, as applicable, by the Share Delivery Date pursuant to Section 6(d)(i), and if after such Share Delivery Date such Holder is required by its brokerage firm 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 such Holder of the Conversion Shares which such Holder was entitled to receive upon the conversion relating to such Share Delivery Date (a "Buy-In"), then the Corporation shall (A) pay in cash to such Holder (in addition to any other remedies available to or elected by such Holder) the amount by which (x) such Holder's total purchase price (including any brokerage commissions) for the shares of Common Stock so purchased exceeds (y) the product of (1) the aggregate number of shares of Common Stock that such Holder was entitled to receive from the conversion at

issue multiplied by (2) the actual sale price at which the sell order giving rise to such purchase obligation was executed (including any brokerage commissions) and (B) at the option of such Holder, either reissue (if surrendered) the shares of Series A Preferred Stock equal to the number of shares of Series A Preferred Stock submitted for conversion or deliver to such Holder the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 6(d)(i); provided that the Holder shall have no right to any such payment under clause (A) hereof if the failure of the Corporation to deliver such Conversion Shares is a failure caused by incorrect or incomplete information provided by Holder to the Corporation; provided, further, that the Corporation shall notify a Holder as promptly as possible after the Corporation becomes aware of the fact that information provided by such Holder to the Corporation is incorrect or incomplete. For example, if a Holder purchases shares of Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted conversion of shares of Series A Preferred Stock with respect to which the actual sale price (including any brokerage commissions) giving rise to such purchase obligation was a total of \$10,000 under clause (A) of the immediately preceding sentence, the Corporation shall be required to pay such Holder \$1,000. The Holder shall provide the Corporation written notice within five (5) Trading Days after the occurrence of a Buy-In indicating the amounts payable to such Holder in respect of the Buy-In together with applicable confirmations and any other evidence reasonably requested by the Corporation related thereto. 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 Corporation's failure to timely deliver certificates representing shares of Common Stock upon conversion of the shares of Series A Preferred Stock as required pursuant to the terms hereof.

iv. Reservation of Shares Issuable Upon Conversion. The Corporation covenants that it will at all times reserve and keep available out of its authorized and unissued shares of Common Stock for the sole purpose of issuance upon conversion of the Series A Preferred Stock and payment of dividends on the Series A Preferred Stock, each as herein provided, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holders of the Series A Preferred Stock, not less than such aggregate number of shares of the Common Stock as shall be issuable (taking into account the adjustments of Section 7 and without regard to the Beneficial Ownership Limitation) upon the conversion of all outstanding shares of Series A Preferred Stock. The Corporation covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid and nonassessable.

v. Fractional Shares. No fractional shares or scrip representing fractional shares of Common Stock shall be issued upon the conversion of the Series A Preferred Stock. As to any fraction of a share which a Holder would otherwise be entitled to receive upon such conversion, the Corporation shall round up to the next whole share.

vi. Taxes. The Corporation shall be responsible for paying, and the issuance of certificates for shares of the Common Stock upon conversion of the Series A Preferred Stock shall be made without charge to any Holder for, any stamp, court or documentary, intangible, filing or similar taxes that may be payable in respect of the issuance or delivery thereof; provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such certificate upon conversion in a name other than that of the registered Holder(s) of such shares of Series A Preferred Stock and the Corporation shall not be required to issue or deliver such certificates in a name other than that of the registered Holder(s) unless or until the Person or Persons requesting the issuance thereof shall have paid to the Corporation the amount of the applicable transfer tax (if any) or shall have established to the satisfaction of the Corporation that the applicable transfer tax (if any) has been paid.

vii. Status as Preferred Stockholder. Effective as of the delivery by the Holder of the Notice of Conversion by the Holder by facsimile or electronic mail, as provided herein, subject to Section 6(c) hereof, (A) the shares of Series A Preferred Stock being converted shall be deemed converted into shares of Common Stock, (B) the Holder shall be deemed the Holder or record of such applicable Conversion Shares, and (C) the Holder's rights as a Holder of such converted shares of Series A Preferred Stock shall cease and terminate, excepting only the right to receive certificates evidencing such shares of Common Stock, or electronic delivery of such shares in the case of DWAC Delivery, and to any remedies provided herein or otherwise available at law or in equity to such Holder because of a failure by the Corporation to comply with the terms of this Certificate of Designation. In all cases, the Holder shall retain all of its rights and remedies for the Corporation's failure to convert Series A Preferred Stock.

Section 7. Certain Adjustments.

a) Stock Dividends and Stock Splits. If the Corporation, at any time while this Series A Preferred Stock is outstanding: (A) pays a stock dividend or otherwise makes a distribution or distributions payable in shares of Common Stock on shares of Common Stock or any other Common Stock Equivalents (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Corporation upon conversion of, or payment of a dividend on, this Series A Preferred Stock); (B) subdivides outstanding shares of Common Stock into a larger number of shares; (C) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares; or (D) issues, in the event of a reclassification of shares of the Common Stock, any shares of capital stock of the Corporation, then the Conversion Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock (or in the event that clause (D) of this Section 7(a) shall apply, shares of reclassified capital stock), outstanding immediately after such event (excluding any treasury shares of the Corporation). Any adjustment made pursuant to this Section 7(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) **Fundamental Transaction.** If, at any time while this Series A Preferred Stock is outstanding, (i) the Corporation, directly or indirectly in one or more related transactions, effects any merger or consolidation of the Corporation with or into another Person (other than a merger in which the Corporation is the surviving or continuing entity and its capital stock outstanding immediately prior to the merger or consolidation is not exchanged for or converted into other securities, cash or other property), (ii) the Corporation, directly or indirectly in one or more related transactions, effects any sale of all or substantially all of its assets in one transaction or a series of related transactions and distributes the proceeds thereof to its stockholders, (iii) any tender offer or exchange offer (whether by the Corporation or another Person) is completed pursuant to which holders of Common Stock are permitted to tender or exchange their shares for other securities, cash or property, or (iv) the Corporation, directly or indirectly in one or more related transactions, effects any reclassification of the Common Stock or any compulsory share exchange pursuant (other than as a result of a dividend, subdivision or combination covered by Section 7(a) above) to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (in any such case, a "**Fundamental Transaction**"), then, upon the effectiveness of such Fundamental Transaction, each Holder of Series A Preferred Stock shall receive for each Conversion Share that would have been issuable upon such conversion immediately prior to the occurrence of such Fundamental Transaction (without regard to the Beneficial Ownership Limitation), the same kind and amount of securities, cash or property as it would have been entitled to receive upon the occurrence of such Fundamental Transaction if it had been, immediately prior to such Fundamental Transaction, the holder of one share of Common Stock (the "**Alternate Consideration**"). For purposes of any such conversion, the determination of the Conversion Ratio shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Corporation shall adjust the Conversion Ratio in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holders shall be given the same choice as to the Alternate Consideration it receives upon any conversion of this Series A Preferred Stock in connection with such Fundamental Transaction on the same terms and conditions as given to the holders of Common Stock. To the extent necessary to effectuate the foregoing provisions, the Corporation shall cause any successor to the Corporation or surviving entity in such Fundamental Transaction (or any direct or indirect parent entity thereof) to assume in writing all of the obligations of the Corporation under this Certificate in accordance with the provisions of this Section 7(b) pursuant to written agreements in form and substance approved by the holders of a majority of the then outstanding shares of Series A Preferred Stock prior to such Fundamental Transaction. The Corporation shall not have the power to enter into any agreement to which the Corporation or any of its Affiliates is a party and pursuant to which a Fundamental Transaction is effected unless such agreement shall include terms in compliance with the provisions of this Section 7(b).

c) **Calculations.** All calculations under this Section 7 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 7, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding any treasury shares of the Corporation) issued and outstanding.

d) Notice to the Holders.

i. Adjustment to Conversion Price. Whenever the Conversion Price is adjusted pursuant to any provision of this Section 7, the Corporation shall promptly deliver to each Holder a notice setting forth the Conversion Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Conversion by Holder. If (A) the Corporation shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Corporation shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Corporation shall authorize the granting to all holders of the Common Stock of rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Corporation shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Corporation is a party, any sale or transfer of all or substantially all of the assets of the Corporation, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property or (E) the Corporation shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Corporation or any Fundamental Transaction, then, in each case, the Corporation shall cause to be filed at each office or agency maintained for the purpose of conversion of this Series A Preferred Stock, and shall cause to be delivered to each Holder at its last address as it shall appear upon the stock books of the Corporation, at the same time any notice related to any such transaction is delivered to the holders of Common Stock, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants or Fundamental Transaction, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined, or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange or Fundamental Transaction is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice.

Section 8. Miscellaneous.

a) Notice. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Conversion, shall be in writing and delivered personally, by electronic mail (lclifton@kempharm.com), or sent by a nationally recognized overnight courier service, addressed to the Corporation, at its principal place of business, to the attention of the Chief Financial Officer of the Corporation, or such other electronic mail address or address as the Corporation may specify for such purposes by notice to

the Holders delivered in accordance with this Section 8. Any and all notices or other communications or deliveries to be provided by the Corporation hereunder shall be in writing and delivered personally, by confirmed electronic mail or facsimile, or sent by a nationally recognized overnight courier service addressed to each Holder at the electronic mail address, facsimile number or address of such Holder appearing on the books of the Corporation, or if no such facsimile number or address appears on the books of the Corporation, at the principal place of business of such Holder. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time and date of transmission, if such notice or communication is delivered via electronic mail to the e-mail address specified in this Section 8, (ii) the second Business Day following the date of mailing, if sent by nationally recognized overnight courier service, or (iii) upon actual receipt by the party to whom such notice is required to be given.

b) Absolute Obligation. Except as expressly provided herein, no provision of this Certificate of Designation shall alter or impair the obligation of the Corporation, which is absolute and unconditional, to pay liquidated damages on the shares of Series A Preferred Stock at the time, place and rate, and in the coin or currency, herein prescribed.

c) Lost or Mutilated Series A Preferred Stock Certificate. If a Holder's Series A Preferred Stock certificate shall be mutilated, lost, stolen or destroyed, the Corporation shall execute and deliver, in exchange and substitution for and upon cancellation of a mutilated certificate, or in lieu of or in substitution for a lost, stolen or destroyed certificate, a new certificate for the shares of Series A Preferred Stock so mutilated, lost, stolen or destroyed, but only upon receipt of evidence of such loss, theft or destruction of such certificate, and of the ownership thereof reasonably satisfactory to the Corporation and, in each case, customary and reasonable indemnity, if requested.

d) Waiver. Any waiver by the Corporation or a Holder of a breach of any provision of this Certificate of Designation shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Certificate of Designation or a waiver by any other Holders. The failure of the Corporation or a Holder to insist upon strict adherence to any term of this Certificate of Designation on one or more occasions shall not be considered a waiver or deprive that party (or any other Holder) of the right thereafter to insist upon strict adherence to that term or any other term of this Certificate of Designation. Any waiver by the Corporation or a Holder must be in writing. Notwithstanding any provision in this Certificate of Designation to the contrary, any provision contained herein (other than Section 6(c) which cannot be waived by the Holders) and any right of the Holders of Series A Preferred Stock granted hereunder may be waived as to all shares of Series A Preferred Stock (and the Holders thereof) upon the affirmative vote or written consent of the Holders of not less than a majority of the then outstanding shares of Series A Preferred Stock, unless a higher percentage is required by the DGCL, in which case the affirmative consent or written consent of the Holders of not less than such higher percentage shall be required.

e) Severability. If any provision of this Certificate of Designation is invalid, illegal or unenforceable, the balance of this Certificate of Designation shall remain in effect, and if any provision is inapplicable to any Person or circumstance, it shall nevertheless remain applicable to all other Persons and circumstances. If it shall be found that any interest or other amount deemed interest due hereunder violates the applicable law governing usury, the applicable rate of interest due hereunder shall automatically be lowered to equal the maximum rate of interest permitted under applicable law.

f) Next Business Day. Whenever any payment or other obligation hereunder shall be due on a day other than a Business Day, such payment shall be made on the next succeeding Business Day.

g) Headings. The headings contained herein are for convenience only, do not constitute a part of this Certificate of Designation and shall not be deemed to limit or affect any of the provisions hereof.

h) Status of Converted Series A Preferred Stock. If any shares of Series A Preferred Stock shall have been converted into shares of Common Stock or reacquired by the Corporation, such shares shall resume the status of authorized but unissued shares of preferred stock and shall no longer be designated as Series A Preferred Stock.

i) Determinations Made by Accountants. In the case of an inability of the Corporation and the holders of a majority of outstanding shares of Series A Preferred Stock to reach a mutual agreement as to any arithmetic calculation hereunder, the Corporation or the Holders of a majority of the then outstanding Series A Preferred Stock shall submit to the other their arithmetic calculations via electronic transmission within two (2) Trading Days of receipt, or deemed receipt, of any notice or other event giving rise to such dispute, as the case may be. If such Holder(s) and the Corporation are unable to agree upon such calculation within two (2) Trading Days after the submission of such disputed calculation, then the Corporation shall, within two (2) Trading Days thereafter, submit via electronic transmission the disputed arithmetic calculation, to an independent, reputable registered public accounting firm selected by the Corporation and approved by such Holder(s), which approval shall not be unreasonably withheld. The accountants shall perform the determinations or calculations and notify the Corporation and such Holder(s) of the results no later than five (5) Trading Days from the time it receives from the Corporation and such Holder(s) their respective calculations. Such accountants' determination or calculation, as the case may be, shall be binding upon all parties absent verifiable error. Notwithstanding the foregoing, in the event of an inability of the Corporation and the holders of a majority of the outstanding shares of Series A Preferred Stock to reach a mutual determination as to the Conversion Price as contemplated by a Notice of Conversion, if requested by a Holder submitting such Notice of Conversion, the Corporation shall issue to such Holder the Conversion Shares, if any, that are not in dispute in accordance with the terms hereof. For the avoidance of doubt, any determinations made by the accountants, as the case may be, pursuant to this Section 8(i) shall be deemed to be "facts ascertainable" outside of this Certificate of Designation within the meaning of Sections 102(d) and 151(a) of the DGCL, and shall not be deemed to be a determination in or relating to arbitration or made by an arbitrator.

j) Benefit of Holders. The provisions of this Certificate of Designation are intended to be for the benefit of all Holders from time to time and shall be enforceable by any such Holder.

RESOLVED, FURTHER, that the chief executive officer, the president, the chief financial officer or any vice-president, and the secretary or any assistant secretary, of the Corporation be and they hereby are authorized and directed to prepare and file this Certificate of Designation in accordance with the foregoing resolution and the provisions of Delaware law.

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Designation this 5th day of October, 2018.

/s/ R. LaDuane Clifton

Name: R. LaDuane Clifton
Title: Chief Financial Officer

ANNEX A
CONVERSION NOTICE

(TO BE EXECUTED BY THE REGISTERED HOLDER IN ORDER TO CONVERT SHARES OF SERIES A PREFERRED STOCK)

Reference is made to the Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock (the “**Certificate of Designation**”). In accordance with and pursuant to the Certificate of Designation, the undersigned hereby elects to convert the number of shares of Series A Convertible Preferred Stock, par value \$0.0001 per share and with a stated value of \$1,000 per share (the “**Series A Preferred Stock**”), of KemPharm, Inc., a Delaware corporation (the “**Corporation**”), indicated below into shares of common stock, par value \$0.0001 per share (the “**Common Stock**”), of the Corporation, by tendering the stock certificate(s), if applicable, representing the shares of Series A Preferred Stock specified below as of the date specified below.

Date of Conversion: _____

Number of shares of Series A Preferred Stock to be converted: _____

Stock certificate no(s). of shares of Series A Preferred Stock to be converted: _____

This Conversion is conditioned upon the consummation of the following transaction: _____¹

Please confirm the following information:

Conversion Price: _____

Number of shares of Common Stock to be issued: _____

Please issue the shares of Common Stock in accordance with the terms of the Certificate of Designation as follows:

- Deposit/Withdrawal At Custodian (“**DWAC**”) system; or
- Physical Certificate

Issue to: _____

Address (for delivery of physical certificate): _____

E-mail: _____

DTC Participant Number and Name (if through DWAC): _____

Account Number (if through DWAC): _____

¹ No such condition applies if left blank.



Brent B. Siler
+1 202 728 7040
bsiler@cooley.com

October 5, 2018

KemPharm, Inc.
2500 Crosspark Road, Suite E126
Coralville, IA 52241

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the offering by KemPharm, Inc., a Delaware corporation (the "**Company**"), of up to 9,583,334 shares (the "**Shares**") (including up to 1,250,000 shares that may be sold upon the exercise of an option to purchase additional shares) of the Company's common stock, par value \$0.0001 per share (the "**Common Stock**"), pursuant to a Registration Statement on Form S-3 (Registration No. 333-213926) (the "**Registration Statement**"), filed with the Securities and Exchange Commission (the "**Commission**") under the Securities Act of 1933, as amended (the "**Act**"), the related prospectus dated October 17, 2016 (the "**Base Prospectus**") and the prospectus supplement dated October 4, 2018, filed with the Commission pursuant to Rule 424(b) under the Act (together with the Base Prospectus, the "**Prospectus**").

In connection with this opinion, we have examined and relied upon the Registration Statement, the Prospectus, the Company's Amended and Restated Certificate of Incorporation, as amended, and Amended and Restated Bylaws, each as currently in effect, and the originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies thereof, the accuracy, completeness and authenticity of certificates of public officials, and the due execution and delivery of all documents where due execution and delivery are a prerequisite to the effectiveness thereof. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not sought independently to verify such matters.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold in accordance with the Registration Statement and the related Prospectus, will be validly issued, fully paid and non-assessable.

Cooley LLP 1299 Pennsylvania Avenue, NW, Suite 700 Washington, DC 20004-2400
t: (202) 842-7800 f: (202) 842-7899 cooley.com



Page Two

We consent to the reference to our firm under the caption “Legal Matters” in the Prospectus and to the filing of this opinion as an exhibit to a Current Report of the Company on Form 8-K to be filed with the Commission for incorporation by reference into the Registration Statement.

Very truly yours,

COOLEY LLP

By: /s/ Brent B. Siler
Brent B. Siler

Cooley LLP 1299 Pennsylvania Avenue, NW, Suite 700 Washington, DC 20004-2400
t: (202) 842-7800 f: (202) 842-7899 cooley.com

EXCHANGE AGREEMENT

This **EXCHANGE AGREEMENT** (this “**Agreement**”) dated as of October 5, 2018, is by and among KemPharm, Inc., a Delaware corporation (the “**Borrower**”), Deerfield Private Design Fund III, L.P. (“**DPDF**”) and Deerfield Special Situations Fund, L.P. (“**DSS**” and, together with DPDF, the “**Purchasers**”). Capitalized terms used but not otherwise defined in this Agreement shall have the meanings given to them in the Indenture, dated as of February 9, 2016 (the “**Indenture**”), between the Company and U.S. Bank National Association, as trustee.

RECITALS:

A. The Purchasers own an aggregate of \$75,000,000 principal amount of the Borrower’s 5.50% Senior Convertible Notes due 2021 (the “**Notes**”).

B. The Board of Directors of the Borrower has authorized the creation of a new series of Preferred Stock denominated as Series A Convertible Preferred Stock (the “**Series A Preferred Stock**”) with the preferences, rights and limitations described in the Certificate of Designation of Preferences, Rights and Limitations of the Series A Preferred Stock, in the form attached hereto as Exhibit A (the “**Certificate of Designation**”).

B. Pursuant to this Agreement (and subject to the terms and conditions hereof), the Purchasers will exchange an aggregate of \$9,577,000 of the principal amount of Notes (the “**Exchanged Securities**”) for the number of shares of Series A Preferred Stock set forth on Schedule 1 hereto (the “**Exchange Shares**”) which Exchange Shares shall be convertible from time to time by the holder thereof, into shares of Common Stock, par value \$0.0001 per share (“**Common Stock**”) of the Borrower (the “**Conversion Shares**”).

C. The parties intend that the foregoing amendments and exchange of a portion of the Notes for Series A Preferred Stock are part of, and pursuant to, a Plan of Recapitalization and Reorganization of the Borrower described in Section 368(a)(1)(E) of the Internal Revenue Code of 1986, as amended (the “**Code**”).

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants and agreements contained herein, and 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 I.
EXCHANGE

Section 1.01. Exchange. Subject to the terms and conditions hereof, each Purchaser hereby agrees to exchange the Exchanged Securities for the issuance by the Borrower to such Purchaser of the Exchange Shares (the “**Exchange**”), as follows:

(a) Issuance of Shares. Pursuant to the Exchange, the Exchanged Securities shall be exchanged for the number of Exchange Shares as set forth on Schedule 1 hereto.

Section 1.02. **Settlement.**

(a) Upon effectiveness of the Exchange, which shall occur at or prior to 10:00 a.m. (New York time) on October 5, 2018, or such other date and time as the parties hereto may mutually agree (subject to satisfaction (or waiver by the Purchasers) of the conditions set forth in Article V hereto), (i) the Purchasers shall assign and transfer all right, title and interest in and to its Exchanged Securities to the Borrower, and deliver or cause to be delivered the Exchanged Securities to U.S. Bank National Association, as Trustee for the Notes (“**Trustee**”), by book-entry transfer through the facilities of The Depository Trust Company from the account(s) of the Purchasers, free and clear of any mortgage, lien, pledge, charge, security interest, encumbrance, title retention agreement, option, equity or other adverse claim thereto (collectively, “**Liens**”) together with any customary documents of conveyance or transfer that the Borrower or Trustee may reasonably deem necessary or desirable to transfer to and confer in the Borrower all right, title and interest in and to the Exchanged Securities; and (ii) the Borrower shall deliver to each Purchaser a certificate, duly executed on behalf of the Borrower and not bearing any restrictive legend, representing the number of Exchange Shares set forth across from such Purchaser’s name on Schedule I hereto.

(b) Upon the consummation of the Exchange, (i) each Purchaser shall be deemed for all corporate purposes to have become the legal, beneficial and record holder of the Exchange Shares; and (ii) the aggregate principal amount of the Exchanged Securities shall be deemed cancelled.

(c) The parties acknowledge and agree that accrued and unpaid interest due to the Purchasers on the Exchanged Securities on the date hereof is \$95,104.93 in the aggregate (the “**Accrued Interest**”) and shall be paid in cash to the Purchasers as reflected on Schedule I on the date of the Exchange. For the avoidance of doubt, this Agreement does not affect any Notes not exchanged pursuant to this Agreement.

ARTICLE II.
REPRESENTATIONS AND WARRANTIES

Section 2.01. Representations and Warranties of the Purchasers. Each Purchaser hereby represents and warrants to the Borrower as of the date of this Agreement as follows:

(a) Organization and Good Standing. Such Purchaser is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted.

(b) Authority. Such Purchaser has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and otherwise to carry out its obligations hereunder. The execution and delivery of each of this Agreement by such Purchaser and the consummation by it of the transactions contemplated hereby have been duly authorized by all necessary action on the part of such Purchaser and no further action is required in connection herewith or therewith.

(c) Valid and Binding Agreement. This Agreement has been duly executed and delivered by such Purchaser and constitutes the valid and binding obligation of such Purchaser, enforceable against such Purchaser in accordance with its terms, except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally and (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

(d) Non-Contravention. The execution and delivery of this Agreement by such Purchaser and the performance by such Purchaser of its obligations hereunder, does not and will not (i) violate any provision of such Purchaser's certificate or articles of incorporation, bylaws or other organizational or charter documents, or (ii) conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which such Purchaser is subject, or by which any of such Purchaser's Notes is bound or affected except, in each instance of clauses (i) and (ii) hereof, where such violation or conflict would not reasonably be expected, individually or in the aggregate, to result in a material adverse effect on the ability of such Purchaser to timely perform its obligations under this Agreement or the Certificate of Designation.

(e) Exemption. Such Purchaser has held such Purchaser's Notes of record and beneficially for a period of at least one (1) year for purposes of Rule 144 under the Securities Act and is not, and during the three-month period prior to the date hereof has not been, an "affiliate" (as such term is used in Rule 144 under the Securities Act) of the Borrower. Such Purchaser understands that the Exchange Shares and the Conversion Shares are being offered, sold, issued and delivered to it in reliance upon specific exemptions from registration or qualification under federal and applicable state securities laws.

(f) Ownership of the Notes. Such Purchaser is the record and beneficial owner of, and has good and valid title to, such Purchaser's Exchanged Securities, free and clear of all Liens, and has full power to dispose thereof and to exercise all rights thereunder (other than as restricted by this Agreement or the Indenture (as defined below) and other than pledges or security interests that such Purchaser may have created in favor of a prime broker under and in accordance with its prime brokerage account with such broker), without the consent or approval of, or any other action on the part of, any other Person. Other than the transactions contemplated by this Agreement, there is no outstanding contract, vote, plan, pending proposal or other right of any Person to acquire such Purchaser's Notes or any portion thereof. Such Purchaser has not, in whole or in part, (a) assigned, transferred, hypothecated, pledged, exchanged or otherwise disposed of any of its Exchanged Securities or its rights in its Exchanged Securities, or (b) except, as would not materially and adversely affect the ability of such Purchaser to consummate the transactions contemplated hereby, given any person or entity any transfer order, power of attorney or other authority of any nature whatsoever with respect to its Exchanged Securities. Upon such Purchaser's delivery of its Exchanged Securities to the Borrower pursuant to the Exchange, such Exchanged Securities shall be free and clear of all Liens created by such Purchaser.

(g) Accredited Investor/Qualified Institutional Buyer. Such Purchaser is an "accredited investor" as that term is defined in Rule 501(a) of Regulation D under the Securities Act. Such Purchaser is a "qualified institutional buyer" as that term is defined in Rule 144A under the Securities Act. Such Purchaser understands the economic risk of its investment in the Shares, and has such knowledge and experience in financial and business matters that it is capable of evaluating the merits and risks of an investment in the Exchange Shares.

(h) Information. Such Purchaser acknowledges and agrees that (i) such Purchaser has had the opportunity to review the Borrower's SEC Reports (as defined below) and this Agreement (including the exhibits hereto), (ii) such Purchaser has had an opportunity to submit questions to the Borrower concerning the Borrower, its business, operations, financial performance, financial condition and prospects, and the terms and conditions of the Exchange, and has all information that it considers necessary in making an informed investment decision, (iii) such Purchaser has had the opportunity to consult with its accounting, tax, financial and legal advisors to be able to evaluate the risks involved in the Exchange and to make an informed investment decision with respect to such Exchange. Notwithstanding anything to the contrary contained herein, the rights and remedies available to such Purchaser, neither any such review nor any due diligence investigation conducted by such Purchaser or its advisors, if any, or its representatives shall modify, amend or otherwise affect such Purchaser's right to rely on the representations and warranties of the Borrower contained in this Agreement.

(i) No Illegal Transactions. Such Purchaser has not, directly or indirectly, and no person acting on behalf of or pursuant to any understanding with it has, disclosed to a third party (other than to its legal and other representatives) any information regarding the Exchange or engaged in any transactions in the securities of the Company (including, without limitation, any Short Sales (as defined below) involving any of the Company's securities) since August 29, 2018. "**Short Sales**" include, without limitation, all "short sales" as defined in Rule 200 of Regulation SHO promulgated under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and all types of direct and indirect stock pledges, forward sale contracts, options, puts, calls, short sales, swaps, derivatives and similar arrangements (including on a total return basis), and sales and other transactions through non-U.S. broker-dealers or foreign regulated brokers. Solely for purposes of this Section 2.1(i), subject to such Purchaser's compliance with their respective obligations under the U.S. federal securities laws and such Purchaser's respective internal policies, (a) such "Purchaser" shall not be deemed to include any employees, subsidiaries or affiliates of such Purchaser that are effectively walled off by appropriate information barriers approved by such Purchaser's respective legal or compliance department (and thus have not been privy to any information concerning the Exchange), and (b) the foregoing representations and covenants of this Section 2.01(i) shall not apply to any transaction by or on behalf of an account of such Purchaser that was effected without the advice or participation of, or such account's receipt of information regarding the Exchange provided by, such Purchaser.

Section 2.02. Representations and Warranties of the Borrower. The Borrower hereby represents and warrants to the Purchasers as of the date of this Agreement as follows:

(a) Organization and Good Standing. The Borrower is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted.

(b) Authority. The Borrower has the requisite corporate power and authority, as applicable, to enter into and to consummate the transactions contemplated by this Agreement and otherwise to carry out its obligations hereunder. The execution and delivery of this Agreement by the Borrower and the consummation by it of the transactions contemplated hereby have been duly authorized by all necessary action on the part of the Borrower, and no further action of the Borrower, its board of directors, managers, members or stockholders, as applicable, is required in connection herewith or therewith.

(c) Consents. The Borrower is not required to obtain any consent from, authorization or order of, or make any filing or registration with any governmental authority or any regulatory or self-regulatory agency or any other Person in order for it to execute, deliver or perform any of its respective obligations under or contemplated by this Agreement, in accordance with the terms hereof or thereof, other than filing the Certificate of Designation with the Secretary of State of the State of Delaware and filing the 8-K Filing (as defined below) with the U.S. Securities and Exchange Commission (the “**Commission**”).

(d) Valid and Binding Agreement. This Agreement has been duly executed and delivered by the Borrower, and constitutes and, upon the filing thereof the Certificate of Designation, the Exchange Shares will constitute, the valid and binding obligation of the Borrower, enforceable against the Borrower in accordance with its terms, except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and other laws of general application affecting enforcement of creditors’ rights generally and (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

(e) Non-Contravention. The execution and delivery of this Agreement by the Borrower and the performance by the Borrower of its obligations hereunder and under the Certificate of Designation do not (i) violate any provision of the Borrower’s organizational documents, (ii) conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Borrower is subject, or by which any property or asset of the Borrower is bound or affected, (iii) require any permit, authorization, consent, approval, exemption or other action by, notice to or filing with, any court or other federal, state, local or other governmental authority or other Person, other than filing the Certificate of Designation with the Secretary of State of the State of Delaware and filing the 8-K Filing with the Commission, (iv) violate, conflict with, result in a material breach of, or constitute (with or without notice or lapse of time or both) a material default under, or an event which would give rise to any right of notice, modification, acceleration, payment, cancellation or termination under, or in any manner release any party thereto from any obligation under, any permit or contract to which the Borrower is a party or by which any of its properties or assets are bound, other than the Indenture, (v) violate, conflict with, result in a material breach of, or constitute (with or without notice or lapse of time or both) a material default under, or an event which would give rise to any right of notice, modification, acceleration, payment, cancellation or termination under, or in any manner release any party thereto from any obligation under, the Indenture, or (vi) result in the creation or imposition of any Lien on any part of the properties or assets of the Borrower, except, in each instance of clauses (ii), (iii), (iv) and (vi) hereof, where such violation, conflict, breach, default or Lien would not reasonably be expected, individually or in the aggregate, to result in a material adverse effect on the business, operations, results of

operations, condition (financial or otherwise) or properties of the Borrower and its Subsidiaries, taken as a whole, (b) the legality, validity or enforceability of any provision of this Agreement or the Certificate of Designation, (c) the ability of the Borrower to timely perform its obligations under this Agreement or the Certificate of Designation, or (d) the rights and remedies of the Purchasers under this Agreement or the Certificate of Designation. No Event of Default (as defined in the Indenture) under the Indenture exists as of the date hereof.

(f) Issuance of Exchange Shares. The Exchange Shares are duly authorized and, when issued in accordance with this Agreement, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Borrower, and will not be issued in violation of, or subject to, any preemptive or similar rights of any person. The Conversion Shares issuable upon conversion of the Exchange Shares, subject to the Beneficial Ownership Limitation (as defined in the Certificate of Designation), are duly authorized and, when issued in accordance with the Certificate of Designation, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Borrower, and will not be issued in violation of, or subject to, any preemptive or similar rights of any person. The Borrower has reserved from its duly authorized capital stock 3,192,334 shares of Common Stock for issuance hereafter upon conversion of the Exchange Shares, free and clear of preemptive or similar rights.

(g) SEC Reports: Nasdaq. The Borrower has filed all reports, schedules, forms, statements and other documents required to be filed by it under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the two years preceding the date hereof (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, being collectively referred to herein as the “**SEC Reports**”). None of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Borrower is not in violation of the requirements of the Nasdaq Global Market (“**Nasdaq**”) and has no knowledge of any facts or circumstances which could reasonably lead to delisting or suspension of trading of the Common Stock in the foreseeable future.

(h) Certain Fees. No brokerage or finder’s fees or commissions are or will be payable by the Borrower or any of its affiliates or representatives to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by this Agreement. The Purchasers shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section 3.2(h) that may be due in connection with the transactions contemplated hereby.

(i) Exemption from Registration. No registration under the Securities Act or any state securities laws is required for the offer and issuance of the Exchange Shares by the Borrower to the Purchasers as contemplated hereby or for the offer and issuance of the Conversion Shares by the Borrower to the Purchasers as contemplated hereby and by the Certificate of Designation. The amendments and transactions contemplated hereby, including the issuance and sale of the Exchange Shares hereunder and the issuance and sale of the Conversion Shares pursuant to the terms of the Certificate of Designation do not contravene, or require stockholder approval pursuant to, the rules and regulations of Nasdaq. Assuming the Purchaser to which Exchange

Shares or Conversion Shares are to be issued is not as of the date of issuance, and for a period of three (3) months prior to the date of issuance has not been, an “affiliate” (as such term is used in Rule 144 under the Securities Act) of the Borrower (which the Borrower shall assume (and the applicable Purchaser shall be deemed to represent) unless such Purchaser has otherwise advised the Borrower in writing) and in reliance on such Purchaser’s representations contained in Section 2.01(e) hereof, the Conversion Shares and the Exchange Shares will be freely tradeable by such Purchaser without restriction or limitation (including volume limitation), pursuant to Rule 144 under the Securities Act, and will not contain or be subject to any legend or stop transfer instructions restricting the sale or transferability thereof.

(j) No Integrated Offering. Neither the Borrower, nor any of its affiliates, nor any person acting on its or their behalf has, directly or indirectly, made, or will make, any offers or sales of any security or solicited, or will solicit, any offers to buy any security, under circumstances that would cause this offering and issuance of the Exchange Shares or the offering and issuance of any of the Conversion Shares to be integrated with prior offerings by the Borrower (i) for purposes of the Securities Act and which would require the registration of any such securities under the Securities Act, or (ii) for purposes of any applicable stockholder approval provisions of Nasdaq and which would require stockholder approval for the issuance of any Exchange Shares or Conversion Shares.

(k) No Unlawful Payments. Neither the Borrower, to the knowledge of the Borrower, nor any of its directors or officers or any employee, agent, affiliate, representative of or other person associated with or acting on behalf of the Borrower, has (a) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity, (b) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds, (c) violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended, or (d) made any bribe, unlawful rebate, payoff, influence payment, kickback or other unlawful payment.

(l) Compliance with Money Laundering Laws. The operations of the Borrower are and have been conducted at all times in compliance with all financial recordkeeping and reporting requirements applicable to the Borrower, including those of the Bank Secrecy Act, as amended by Title III of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT) Act of 2001, and the money laundering and any related or similar laws of all jurisdictions in which the Borrower conducts business (collectively, the “**Money Laundering Laws**”) and no action, suit or proceeding by or before any governmental authority involving the Borrower with respect to the Money Laundering Laws is pending or, to the knowledge of the Borrower, threatened.

(m) OFAC. The Borrower is not (a) a country, the government of a country, or an agency of the government of a country, (b) an organization directly or indirectly controlled by a country or its government, or (c) a person resident in or determined to be resident in a country, in each case, that is subject to a comprehensive country sanctions program administered and enforced by the Office of Foreign Assets Control of the U.S. Department of the Treasury (“**OFAC**”), and the Borrower is not a person named on the list of Specially Designated Nationals maintained by OFAC.

(n) Application of Takeover Protections. The Borrower and its board of directors have taken all necessary action, if any, in order to render inapplicable the Borrower's issuance of the Exchange Shares and Conversion Shares and the Purchasers' ownership of such securities from the provisions of any control share acquisition, interested stockholder, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the organizational documents of the Borrower or the laws of the state of its incorporation which is applicable to the Purchasers as a result of the transactions contemplated by this Agreement, including, without limitation, the Borrower's issuance of Exchange Shares and Conversion Shares and the Purchasers' ownership of such securities.

(o) Underwritten Offering. The Borrower has entered into the Underwriting Agreement (as defined below) for purposes of effecting the Offering (as defined below) on the Offering Terms (as defined below), and does not expect that the closing of the transactions contemplated thereby will be prevented or materially delayed, and is not aware of facts or circumstances that would reasonably be expected to prevent or materially delay such closing.

ARTICLE III. **COVENANTS**

Section 3.01. Reservation of Shares. On and after the date hereof, the Borrower shall at all times reserve and keep available, free of preemptive or similar rights, a sufficient number of shares of Common Stock for the purpose of enabling the Borrower to issue Conversion Shares pursuant to the Certificate of Designation (without regard to the Beneficial Ownership Limitation).

Section 3.02. Blue Sky Filings. The Borrower shall take such action as is necessary in order to obtain an exemption for, or to qualify the Exchange Shares and the Conversion Shares for, issuance and sale to the Purchasers under applicable securities or "Blue Sky" laws of the states of the United States, and shall provide evidence of such actions promptly upon request of any of the Purchasers.

Section 3.03. Listing. The Borrower has submitted an application for the listing of the Conversion Shares on Nasdaq and will use its commercially reasonable efforts to secure such listing. For so long as any Notes remain outstanding, the Borrower shall use commercially reasonable efforts to maintain the Common Stock's listing on Nasdaq. The Borrower shall not take any action which would be reasonably expected to result in the delisting or suspension of trading the Common Stock on Nasdaq. The Borrower shall pay all fees and expenses in connection with satisfying its obligations under this Section 3.03.

Section 3.04. Disclosure: Confidentiality.

(a) On October 4, 2018, the Borrower filed with the Commission a preliminary prospectus supplement, dated October 4, 2018 (the "**Prospectus Supplement**"), which supplements the prospectus, dated October 17, 2016 (including the documents incorporated by reference therein, the "**Base Prospectus**" and, together with the Prospectus Supplement, the "**Preliminary Prospectus**"), forming a part of the Registration Statement on Form S-3 (File No. 333-213926) filed by the Borrower with the Commission on October 3, 2016 and declared effective by the Commission on October 17, 2016. As of the date hereof, the Borrower has entered

into the underwriting agreement (the “**Underwriting Agreement**”) with RBC Capital Markets referred to in the Prospectus Supplement, in connection with which the Borrower is offering and selling 8,333,334 shares of its Common Stock (plus up to an additional 1,250,000 shares of its Common Stock to cover overallotments) at a public offering price of \$3.00 per share (the “**Offering**” and the foregoing terms thereof, the “**Offering Terms**”). The Preliminary Prospectus, as of its date and as of the date hereof does not, and as of the effectiveness of the Exchange the Preliminary Prospectus will not, contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(b) In the Prospectus Supplement, the Borrower represents and warrants that it has disclosed all material, non-public information (if any) provided or made available to any Purchaser (or any Purchaser’s agents or representatives) by Borrower or any of its respective officers, directors, employees, affiliates or agents in connection with the transactions contemplated by this Agreement, the Offering or otherwise on or prior to the date hereof, including with respect to any actual, proposed or contemplated transaction involving the Borrower, any subsidiary of the Borrower and/or any third party, other than the Pricing Information (as defined below).

(c) On or before 9:30 a.m., New York time, on October 5, 2018, the Borrower shall issue a press release (through a recognized channel of distribution for the Borrower) announcing the completion of the Offering and the anticipated consummation of the transactions contemplated hereby, and disclosing the number of Exchange Shares to be issued hereunder, the Conversion Price (as defined in the Certificate of Designation) for the Series A Preferred Stock, the aggregate number of Exchange Shares initially issuable upon conversion of the Exchange Shares and any material information relating to the Offering (including the number of shares being offered and the public offering price) omitted from the Preliminary Prospectus (the “**Pricing Information**”) (the “**Announcing Press Release**”). On or before 10:00 a.m., New York time, on October 5, 2018, the Borrower shall file a Current Report on Form 8-K (the “**8-K Filing**”) describing all the material terms of the transactions contemplated by this Agreement and attaching this Agreement, the Certificate Designation and the Announcing Press Release.

(d) Notwithstanding anything contained in this Agreement to the contrary and without implication that the contrary would otherwise be true, , the Borrower expressly acknowledges and agrees that, from and after the issuance of the Announcing Press Release, no Purchaser shall have (unless expressly agreed to by a particular Purchaser in a written definitive and binding agreement executed by the Borrower and such particular Purchaser or customary oral (confirmed by e-mail) “wall-cross” agreement (it being understood and agreed that no Purchaser may bind any other Purchaser with respect thereto)), any duty of trust or confidence with respect to, or a duty not to trade on the basis of, any information regarding the Borrower.

(e) Notwithstanding anything to the contrary herein, in the Facility Agreement (as defined below), in any Transaction Document (as defined in the Facility Agreement) or in any other agreement entered into on or before the date hereof, in the event that the Borrower believes that a notice or communication to any of DPDF, DSS or to any officer, partner, employee or Affiliate (as defined in the Certificate of Designation) of any of DPDF or DSS (collectively with DPDF and DSS, the “**Deerfield Parties**”) or any other information that may be provided by or on behalf of the Borrower or any of its subsidiaries to any of the Deerfield Parties contains material,

nonpublic information relating to the Borrower, any of its subsidiaries or Affiliates or any of their respective property, assets, securities or businesses, the Borrower shall so indicate to the applicable Deerfield Party contemporaneously with delivery of such notice, communication or information, and such indication shall provide such Deerfield Party the means to refuse to receive such notice or communication; and in the absence of any such indication, the Deerfield Party (and any other Deerfield Parties related thereto) shall be allowed to presume that all matters relating to such notice, communication or information do not constitute material, nonpublic information relating to the Borrower, any of its subsidiaries or its Affiliates or any of their respective property, assets, securities or businesses.

(f) No Deerfield Party shall have any duty of trust or confidence with respect to, or any obligation not to trade in any securities on the basis of, any material nonpublic information regarding the Borrower, any of its subsidiaries or Affiliates or any of their respective property, assets, securities or businesses provided by, or on behalf of, the Borrower, any of its subsidiaries, any of their respective Affiliates or any of their respective officers, directors, employees, attorneys, representatives or agents, in violation of any of the covenants set forth in this Section 3.04 or that is otherwise possessed (or continued to be possessed) by any Deerfield Party as a result of a breach of any of the covenants set forth in this Section 3.04.

(g) DPDF and the Borrower hereby agree that Section 6.14 of that certain Facility Agreement, dated as of June 2, 2014, between the Borrower and DPDF, as the same may be amended, modified or supplemented from time to time, shall be deemed amended by the foregoing Sections 3.04(e) and (f).

Section 3.05. Taxes. The Borrower shall be responsible for paying all present or future stamp, court or documentary, intangible, recording, filing or similar taxes that arise from any payment or issuance made under, from the execution, delivery, performance or enforcement of, or otherwise with respect to, this Agreement.

Section 3.06. Tax Treatment. The parties intend and agree that the exchanges of a portion of the Notes for Exchange Shares described herein are part of and pursuant to a Plan of Recapitalization and Reorganization of the Borrower described in Section 368(a)(1)(E) of the Code, and shall report the transactions for federal, state and local income tax purposes in accordance therewith unless otherwise required by applicable law.

Section 3.07. Fees and Expenses. The Borrower shall promptly reimburse the Purchasers for all of their reasonable out-of-pocket, costs, fees and expenses, including legal fees and expenses, incurred in connection with the negotiation and drafting of this Agreement and the consummation of the transactions contemplated hereby, up to a maximum of \$25,000 for all such expenses.

ARTICLE IV.
ACKNOWLEDGMENT OF THE BORROWER

Section 4.01. The Borrower irrevocably and unconditionally acknowledges, affirms and covenants to each Purchaser that:

(a) such Purchaser is not in default under the Indenture and has not otherwise breached any obligations to the Borrower; and

(b) there are no offsets, counterclaims or defenses to the obligations under the Indenture as of the date hereof, including the liabilities and obligations of the Borrower under the Notes or the rights, remedies or powers of such Purchaser in respect of any of the obligations under the Indenture, and the Borrower agrees not to interpose (and each does hereby waive and release) any such defense, set off or counterclaim in any action brought by such Purchaser with respect thereto.

ARTICLE V.
CONDITIONS PRECEDENT.

Section 5.01. Conditions Precedent. The effectiveness of this Agreement and the Exchange is subject to the following conditions precedent:

(a) Delivery of Documents. The Borrower and the Purchasers shall each have executed and delivered this Agreement.

(b) Performance: No Default. The representations and warranties of the Borrower and Purchasers contained herein shall be true and correct, and the Borrower and Purchasers shall have performed and complied with all agreements and conditions contained in this Agreement to be performed by or complied with by the Borrower or Purchasers, as applicable, prior to the date hereof in all respects.

(c) The custodian designated by the Purchasers shall have received stock certificates, registered in the name of such Purchasers, evidencing the number of shares of Series A Preferred Stock issuable hereunder to such Purchasers.

(d) The Purchasers shall have received evidence satisfactory to the Purchasers that the Certificate of Designation has been filed with the Secretary of State of the State of Delaware and has become effective.

(e) The Purchasers (or their counsel) shall have received customary legal opinions from Cooley LLP, as counsel to the Borrower.

(f) The Purchasers shall have received the Accrued Interest.

ARTICLE VI.
MISCELLANEOUS

Section 6.01. Entire Agreement. This Agreement constitute the entire agreement, and supersedes all other prior and contemporaneous agreements and understandings, both oral and written, among the Purchasers and the Borrower with respect to the subject matter hereof.

Section 6.02. Amendments and Waivers. No provision of this Agreement may be waived or amended except in a written instrument signed by the Borrower and (i) prior to the effectiveness of the Exchange, the Purchasers holding Exchanged Securities representing a majority of the outstanding principal amount of all Exchanged Securities and (ii) following the effectiveness of the Exchange, the Purchasers holding a majority of the Exchange Shares issued hereunder. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of either party to exercise any right hereunder in any manner impair the exercise of any such right.

Section 6.03. Successors and Assigns. All of the covenants and provisions of this Agreement by or for the benefit of the Purchasers or the Borrower shall bind and inure to the benefit of their respective successors and permitted assigns. No party hereunder may assign its rights or obligations hereunder without the prior written consent of the other parties hereto, except that a Purchaser may assign its rights hereunder to a permitted transferee of Exchange Shares or Conversion Shares.

Section 6.04 Notices. Any notice, request or other communication to be given or made under this Agreement shall be in writing. Such notice, request or other communication shall be deemed to have been duly given or made when it shall be delivered by hand, overnight mail, international courier (confirmed by facsimile), electronic mail or facsimile to the party to which it is required or permitted to be given or made at such party's address specified below or at such other address as such party shall have designated by notice to the other parties.

If to the Borrower: KemPharm, Inc.

1180 Celebration Blvd.
Suite 103
Celebration, FL 34747
Fax: (321) 250-3698
E-mail: lclifton@kempharm.com
Attention: R. LaDuane Clifton, Chief Financial Officer

With a copy to (which shall not constitute notice hereunder):

Cooley LLP
1299 Pennsylvania Avenue, NW
Suite 700
Washington, DC 20004
Fax: (703) 456-8100
Email: bsiler@cooley.com
Attention: Brent Siler

If to DPDF or DSS:

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 to:

Katten Muchin Rosenman LLP
525 W. Monroe Street
Chicago, Illinois 60661-3693
Fax: (212) 940-8776
Email: mark.wood@kattenlaw.com
Attn: Mark Wood

Section 6.05 Applicable Law; Consent to Jurisdiction.

(a) As part of the consideration and mutual promises being exchanged and given in connection with this Agreement, the parties hereto agree that all claims, controversies and disputes of any kind or nature arising under or relating in any way to the enforcement or interpretation of this Agreement or to the parties' dealings, rights or obligations in connection herewith, including disputes relating to the negotiations for, inducements to enter into, or execution of, this Agreement, and disputes concerning the interpretation, enforceability, performance, breach, termination or validity of all or any portion of this Agreement shall be governed by the laws of the State of New York without regard to its choice or conflicts of laws principles.

(b) The parties hereto agree that all claims, controversies and disputes of any kind or nature relating in any way to the enforcement or interpretation of this Agreement or to the parties' dealings, rights or obligations in connection herewith, shall be brought exclusively in the state and federal courts sitting in The City of New York, borough of Manhattan. With respect to any such claims, controversies or disputes, each of the Parties hereby irrevocably:

(i) submits itself and its property, generally and unconditionally, to the personal jurisdiction of the aforesaid courts and agrees that it will not bring any action in any court or tribunal other than the aforesaid courts;

(ii) waives, and agrees not to assert, by way of motion, as a defense, counterclaim or otherwise, in any action or proceeding (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 serve process in accordance with this Section 6.05, (B) any claim 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 the applicable law, any claim that (1) the suit, action or proceeding in such court is brought in an inconvenient forum, (2) the venue of such suit, action or proceeding is improper or (3) this Agreement, or the subject matter hereof, may not be enforced in or by such courts; and

(iii) WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY DISPUTE ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT. EACH PARTY TO THIS AGREEMENT CERTIFIES AND

ACKNOWLEDGES THAT (A) NO REPRESENTATIVE OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT SEEK TO ENFORCE THE FOREGOING WAIVER IN THE EVENT OF A LEGAL ACTION, (B) SUCH PARTY HAS CONSIDERED THE IMPLICATIONS OF THIS WAIVER, (C) SUCH PARTY MAKES THIS WAIVER VOLUNTARILY AND (D) SUCH PARTY HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 6.05.

Notwithstanding the foregoing in this Section 6.05, a party may commence any action or proceeding in a court other than the above-named courts solely for the purpose of enforcing an order or judgment issued by one of the above-named courts.

Section 6.06. Counterparts; Effectiveness. This Agreement and any amendment hereto may be executed and delivered in any number of counterparts, and by the different parties hereto in separate counterparts, each of which when executed shall be deemed to be an original, but all of which taken together shall constitute one and the same agreement. In the event that any signature to this Agreement or any amendment hereto is delivered by facsimile transmission or by e-mail delivery of a “.pdf” format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or “.pdf” signature page were an original thereof. No party hereto shall raise the use of a facsimile machine or e-mail delivery of a “.pdf” format data file to deliver a signature to this Agreement or any amendment hereto or the fact that such signature was transmitted or communicated through the use of a facsimile machine or e-mail delivery of a “.pdf” format data file as a defense to the formation or enforceability of a contract, and each party hereto forever waives any such defense.

Section 6.07. No Third Party Beneficiaries. Nothing in this Agreement, express or implied, is intended to or shall confer upon any person (other than the parties to this Agreement) any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

Section 6.08. Specific Performance. The parties to this Agreement agree that irreparable damage would occur and that the parties to this Agreement would not have any adequate remedy at law in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties to this Agreement shall be entitled to an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions of this Agreement, in each case without the necessity of posting bond or other security or showing actual damages, and this being in addition to any other remedy to which they are entitled at law or in equity.

Section 6.09. Effect of Headings. The section and subsection headings herein are for convenience only and not part of this Agreement and shall not affect the interpretation thereof.

Section 6.10. Severability. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the

remainder of this Agreement so long as this Agreement as so modified continues to express, without material change, the original intentions of the parties as to the subject matter hereof and the prohibited nature, invalidity or unenforceability of the provision(s) in question does not substantially impair the respective expectations or reciprocal obligations of the parties or the practical realization of the benefits that would otherwise be conferred upon the parties. The parties will endeavor in good faith negotiations to replace the prohibited, invalid or unenforceable provision(s) with a valid provision(s), the effect of which comes as close as possible to that of the prohibited, invalid or unenforceable provision(s).

Section 6.11. Reservation of Rights. None of the Purchasers has hereby waived any of such Purchaser's rights or remedies arising from any such breach or default or any right otherwise available under the Indenture or at law or in equity as to any of such Purchaser's Notes that remain outstanding following the effectiveness of the Exchange. Each of the Purchasers expressly reserves all such rights and remedies. Notwithstanding anything else to the contrary herein, each Purchaser hereby agrees that the issuance of the Exchange Shares to such Purchaser satisfies in full any and all obligations of the Borrower under the Notes and Indenture as to the Exchanged Securities and such Purchaser's remedies with regard to such Exchanged Securities shall be solely as described in this Agreement.

Section 6.12. Further Assurances. The parties hereby agree, from time to time, as and when reasonably requested by any other party hereto, to execute and deliver or cause to be executed and delivered, all such documents, instruments and agreements, including secretary's certificates, stock powers and irrevocable transfer agent instructions, and to take or cause to be taken such further or other action, as any party may reasonably deem necessary or desirable in order to carry out the intent and purposes of this Agreement.

Section 6.13. No Strict Construction. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rule of strict construction will be applied against any party.

Section 6.14. Interpretative Matters. Unless otherwise indicated or the context otherwise requires, (i) all references to Sections, Schedules, Appendices or Exhibits are to Sections, Schedules, Appendices or Exhibits contained in or attached to this Agreement, (b) 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, (c) the words "hereof," "herein" and words of similar effect shall reference this Agreement in its entirety, and (d) the use of the word "including" in this Agreement shall be by way of example rather than limitation.

IN WITNESS WHEREOF, each party hereto has caused this Agreement to be duly executed as of the date first written above.

THE BORROWER:

KEMPHARM, INC.

By: /s/ R. LaDuane Clifton

Name: R. LaDuane Clifton

Title: Chief Financial Officer

[Signature page to Exchange Agreement]

PURCHASERS:

DEERFIELD PRIVATE DESIGN FUND III, L.P.

By: Deerfield Mgmt III, L.P., its General Partner
By: J.E. Flynn Capital III, LLC, its General Partner

By: /s/ David Clark

Name: David Clark

Title: Authorized Signatory

DEERFIELD SPECIAL SITUATIONS FUND, L.P.

By: Deerfield Mgmt, L.P., its General Partner
By: J.E. Flynn Capital, LLC, its General Partner

By: /s/ David Clark

Name: David Clark

Title: Authorized Signatory

[Signature page to Exchange Agreement]

Schedule I

PURCHASER	Accrued Interest	Exchanged Securities (principal amount)	Exchange Shares	Conversion Shares underlying Exchange Shares
Deerfield Private Design Fund III, L.P.	\$79,255.76	\$7,981,000	7,981	2,660,334
Deerfield Special Situations Fund, L.P.	\$15,849.17	\$1,596,000	1,596	532,000
Total:	\$95,104.93	\$9,577,000	9,577	3,192,334

Exhibit A
Certificate of Designation

[Separately Provided]



KemPharm Announces Pricing of Public Offering of Common Stock

Coralville, IA – October 5, 2018 – KemPharm, Inc. (NASDAQ:KMPH), a specialty pharmaceutical company focused on the discovery and development of proprietary prodrugs, today announced the pricing of its underwritten public offering of 8,333,334 shares of its common stock at a price to the public of \$3.00 per share. In addition, KemPharm has granted to the underwriters a 30-day option to purchase up to 1,250,000 additional shares of common stock at the public offering price, less the underwriting discount. The offering is expected to close on or about October 10, 2018, subject to customary closing conditions.

RBC Capital Markets is acting as the sole book-running manager for the offering. Oppenheimer & Co. Inc. is acting as the lead manager and Janney Montgomery Scott and Roth Capital Partners are acting as co-managers for the offering.

KemPharm intends to use the net proceeds of the offering primarily to fund an NDA submission for KP415, to initiate a pivotal trial for KP484 and for general corporate purposes.

A shelf registration statement relating to this offering was filed with the Securities and Exchange Commission (SEC) on October 3, 2016, and declared effective by the SEC on October 17, 2016. The offering is being made only by means of a written prospectus and prospectus supplement that form a part of the registration statement. A preliminary prospectus supplement and accompanying prospectus relating to the offering has been filed with the SEC and is available on the SEC's website at www.sec.gov. A final prospectus supplement and accompanying prospectus will be filed with the SEC. When available, copies of the final prospectus supplement and the accompanying prospectus may also be obtained by contacting:

RBC Capital Markets, LLC
200 Vesey Street, 8th Floor
New York, NY 10281
Attn: Equity Syndicate
Email: equityprospectus@rbccm.com.

This press release shall not constitute an offer to sell or the solicitation of an offer to buy the securities being offered, nor shall there be any sale of the securities being offered in any state or other jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of any such state or other jurisdiction.

KemPharm also announced entering into an Exchange Agreement with Deerfield Private Design Fund III, L.P. and Deerfield Special Situations Fund, L.P. (the Holders). Under the Exchange Agreement, the Holders are today exchanging an aggregate of \$9,577,000 principal amount of KemPharm's 5.50% Senior Convertible Notes due 2021 for an aggregate of 9,577 shares of Series A Preferred Stock. Each share of Series A Preferred Stock has an aggregate stated value of \$1,000 and is convertible into shares of Common Stock at a price equal to the public offering price of \$3.00 per share (subject to adjustment to reflect stock splits and similar events). There are an aggregate of 3,192,334 shares of Common Stock issuable upon conversion of the Series A Preferred Stock, subject to adjustment to reflect stock splits and similar events. The Series A Preferred Stock has only a nominal liquidation preference.

About KemPharm:

KemPharm is a specialty pharmaceutical company focused on the discovery and development of proprietary prodrugs to treat serious medical conditions through its proprietary LAT™ (Ligand Activated Therapy) platform technology. KemPharm utilizes its proprietary LAT platform technology to generate improved prodrug versions of FDA-approved drugs in the high need areas of ADHD, pain and other central nervous system disorders. KemPharm's co-lead clinical development candidates are KP415 and KP484, both based on a prodrug of d-methylphenidate, but with differing extended-release/effect profiles for the treatment of ADHD. In addition, KemPharm has received FDA approval for APADAZ®, an immediate-release combination product containing benzhydrocodone, a prodrug of hydrocodone, and acetaminophen.

Forward Looking Statements:

Any statements in this press release about future expectations, plans and prospects for KemPharm, including statements about the anticipated public offering, anticipated use of proceeds and other statements containing the words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including: the uncertainties related to market conditions and the completion of the public offering on the anticipated terms or at all, uncertainties inherent in the initiation of future clinical trials and such other factors as are set forth in the risk factors detailed in KemPharm's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, filed with the SEC on August 10, 2018, and KemPharm's other filings with the SEC under the heading "Risk Factors." In addition, the forward-looking statements included in this press release represent KemPharm's views as of the date hereof. KemPharm anticipates that subsequent events and developments will cause KemPharm's views to change. However, while KemPharm may elect to update these forward-looking statements at some point in the future, KemPharm specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing KemPharm's views as of any date subsequent to the date hereof.

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Investor/Media Contacts:

Jason Rando / Joshua Drumm, Ph.D.

[Tiberend Strategic Advisors, Inc.](#)

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