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

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**FORM 8-K**

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**CURRENT REPORT**

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

**Date of Report (Date of Earliest Event Reported): September 4, 2018**

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**KemPharm, Inc.**

(Exact Name of Registrant as Specified in Its Charter)

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**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)

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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.

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### Item 1.01 – Entry into a Material Definitive Agreement

On September 4, 2018, KemPharm, Inc. (the “Company”) entered into an at the market issuance Common Stock Sales Agreement (the “Agreement”) with RBC Capital Markets, LLC (“RBCCM”) under which the Company may offer and sell, from time to time at its sole discretion, shares of its common stock, par value \$0.0001 per share (the “Common Stock”), having an aggregate offering price of up to \$50,000,000 through RBCCM as its sales agent.

The issuance and sale, if any, of Common Stock by the Company under the Agreement will be registered on the Company’s registration statement on Form S-3, filed with the Securities and Exchange Commission (the “SEC”) on October 3, 2016 and declared effective on October 17, 2016. The registration statement on Form S-3 includes a prospectus supplement offering up to \$50,000,000 of shares of the Company’s Common Stock in accordance with the Agreement. The Company makes no assurances as to the continued effectiveness of the registration statement.

RBCCM may sell the Common Stock by any method permitted by law deemed to be an “at the market offering” as defined in Rule 415 of the Securities Act of 1933, as amended, including without limitation sales made by means of ordinary brokers’ transactions on The Nasdaq Global Market or otherwise at market prices prevailing at the time of sale, in block transactions, or as otherwise directed by the Company. RBCCM will use commercially reasonable efforts to sell the Common Stock from time to time, based upon instructions from the Company (including any price, time or size limits or other customary parameters or conditions the Company may impose). The Company will pay RBCCM a commission of up to three percent (3.0%) of the gross sales proceeds of any Common Stock sold through RBCCM under the Agreement, and also has provided RBCCM with customary indemnification rights.

The Company is not obligated to make any sales of Common Stock under the Agreement. The offering of shares of Common Stock pursuant to the Agreement will terminate upon the earlier of (i) the sale of all Common Stock subject to the Agreement, or (ii) termination of the Agreement in accordance with its terms.

The foregoing description of the Agreement is not complete and is qualified in its entirety by reference to the full text of the Agreement, a copy of which is filed herewith as Exhibit 10.1 to this Current Report on Form 8-K and is incorporated herein by reference. A copy of the opinion of Cooley LLP relating to the legality of the issuance and sale of the shares in the offering is attached as Exhibit 5.1 to this Current Report on Form 8-K.

This Current Report on Form 8-K shall not constitute an offer to sell or the solicitation of an offer to buy the securities discussed herein, nor shall there be any offer, solicitation, or sale of the securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

### Item 1.02 – Termination of a Material Definitive Agreement

On September 4, 2018, the Company delivered notice of termination to Cowen and Company, LLC (“Cowen”) of that certain Common Stock Sales Agreement, dated as of October 3, 2016, by and between the Company and Cowen (the “Prior Agreement”). In accordance with the terms of the Prior Agreement, the termination of the Prior Agreement will be effective on September 14, 2018. Pursuant to the terms of the Prior Agreement, Cowen may sell up to \$50,000,000 of Common Stock by any method permitted by law deemed to be an “at the market offering” as defined in Rule 415 of the Securities Act of 1933, as amended, including without limitation sales made by means of ordinary brokers’ transactions on The Nasdaq Global Market or otherwise at market prices prevailing at the time of sale, in block transactions, or as otherwise directed by the Company. Prior to termination of the Prior Agreement, the Company sold an aggregate of 762,338 shares of Common Stock under the Prior Agreement resulting in gross proceeds to the Company of \$4.9 million. The Company paid Cowen a commission of up to three percent (3.0%) of the gross sales proceeds for such sales of Common Stock sold. Pursuant to the terms of the Prior Agreement, specified obligations of the parties, including the Company’s indemnification obligations to Cowen, survive the termination of the Prior Agreement.

The foregoing description of the Prior Agreement is not complete and is qualified in its entirety by reference to the full text of the Prior Agreement, a copy of which was filed as Exhibit 10.1 to the Company’s Current Report on Form 8-K filed with the SEC on October 3, 2016, and which is incorporated herein by reference.

### Item 9.01 – Financial Statements and Exhibits.

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
5.1	<a href="#">Opinion of Cooley LLP.</a>
10.1	<a href="#">Common Stock Sales Agreement, dated September 4, 2018, by and between KemPharm, Inc. and RBC Capital Markets, LLC.</a>
23.1	<a href="#">Consent of Cooley LLP (contained in Exhibit 5.1).</a>

**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.

Date: September 4, 2018

**KemPharm, Inc.**

By: /s/ R. LaDuane Clifton

R. LaDuane Clifton, CPA

Chief Financial Officer, Secretary and Treasurer

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

September 4, 2018

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

Ladies and Gentlemen:

You have requested our opinion, as counsel to KemPharm, Inc., a Delaware corporation (the “**Company**”), with respect to certain matters in connection with the offering by the Company of the \$50,000,000 of the Company’s common stock, par value \$0.0001 (the “**Shares**”), pursuant to a Registration Statement on Form S-3 (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 prospectus included within the Registration Statement (the “**Base Prospectus**”), and the prospectus supplement dated September 4, 2018, filed with the Commission pursuant to Rule 424(b) of the Rules and Regulations of the Act (together with the Base Prospectus, the “**Prospectus**.”). The Shares are to be sold by the Company in accordance with a Sales Agreement, dated September 4, 2018, between the Company and RBC Capital Markets, LLC (the “**Agreement**”), as described in the Prospectus.

In connection with this opinion, we have examined and relied upon the Registration Statement and the Prospectus, the Agreement, the Company’s Amended and Restated Certificate of Incorporation, its Amended and Restated Bylaws, 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. In rendering this opinion, we have assumed the genuineness and authenticity of all signatures on original documents; the genuineness and authenticity of all documents submitted to us as originals; the conformity to originals of all documents submitted to us as copies; and the accuracy, completeness and authenticity of certificates of public officials.

We have assumed (i) that each sale of Shares will be duly authorized by the Board of Directors of the Company, a duly authorized committee thereof or a person or body pursuant to an authorization granted in accordance with Section 152 of the General Corporation Law of the State of Delaware (the “**DGCL**”), (ii) that no more than 10,526,315 Shares will be sold under the Agreement and (iii) that the price at which the Shares are sold will equal or exceed the par value of the Shares. We express no opinion to the extent that future issuances of securities of the Company and/or anti-dilution adjustments to outstanding securities of the Company cause the number of shares of the Company’s common stock outstanding or issuable upon conversion or exercise of outstanding securities of the Company to exceed the number of Shares then issuable under the Agreement.



KemPharm, Inc.  
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Our opinion herein is expressed solely with respect to the General Corporation Law of the State of Delaware. Our opinion is based on these laws as in effect on the date hereof. 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 and issued against payment therefor in accordance with the Agreement, the Registration Statement and the Prospectus, will be validly issued, fully paid and non-assessable.

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 the Company's Current Report 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

**KEMPHARM, INC.****COMMON STOCK****SALES AGREEMENT**

September 4, 2018

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

Ladies and Gentlemen:

KemPharm, Inc. (the "**Company**"), confirms its agreement (this "**Agreement**") with RBC Capital Markets, LLC ("**RBCCM**"), as follows:

1. **Issuance and Sale of Shares.** The Company agrees that, from time to time during the term of this Agreement, on the terms and subject to the conditions set forth herein, it may issue and sell through RBCCM, acting as agent and/or principal, shares (the "**Placement Shares**") of the Company's common stock, par value \$0.0001 per share (the "**Common Stock**"), having an aggregate offering price of up to \$50,000,000. Notwithstanding anything to the contrary contained herein, the parties hereto agree that compliance with the limitation set forth in this **Section 1** on the number of shares of Common Stock issued and sold under this Agreement shall be the sole responsibility of the Company, and RBCCM shall have no obligation in connection with such compliance. The issuance and sale of Common Stock through RBCCM will be effected pursuant to the Registration Statement (as defined below) filed, or to be filed, by the Company and after such Registration Statement has been declared effective by the Securities and Exchange Commission (the "**Commission**"), although nothing in this Agreement shall be construed as requiring the Company to use the Registration Statement (as defined below) to issue the Common Stock.

On the date of this Agreement, the Company has filed, or will file, in accordance with the provisions of the Securities Act of 1933, as amended, and the rules and regulations thereunder (collectively, the "**Securities Act**"), with the Commission a registration statement on Form S-3, including a base prospectus, relating to certain securities, including the Common Stock, to be issued from time to time by the Company, and which incorporates by reference documents that the Company has filed or will file in accordance with the provisions of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (collectively, the "**Exchange Act**"). The Company has prepared a sales prospectus specifically relating to the Placement Shares (the "**Sales Prospectus**") included as part of such registration statement. Following the date that such registration statement is declared effective, the Company shall furnish to RBCCM, for use by RBCCM, copies of the Sales Prospectus, as supplemented, if at all, by any prospectus supplement, relating to the Placement Shares. Except where the context otherwise requires, such

registration statement, as amended when it becomes effective, including all documents filed as part thereof or incorporated by reference therein, and including any information contained in a Prospectus (as defined below) subsequently filed with the Commission pursuant to Rule 424(b) under the Securities Act or deemed to be a part of such registration statement pursuant to Rule 430B or 462(b) of the Securities Act, is herein called the “**Registration Statement**.” The base prospectus, including all documents incorporated therein by reference, and the Sales Prospectus, including all documents incorporated therein by reference, each of which is included in the Registration Statement, as it or they may be supplemented by one or more additional prospectus supplements, in the form in which such prospectus and/or Sales Prospectus have most recently been filed by the Company with the Commission pursuant to Rule 424(b) under the Securities Act, together with any “issuer free writing prospectus,” as defined in Rule 433 of the Securities Act regulations (“**Rule 433**”), relating to the Placement Shares that (i) is required to be filed with the Commission by the Company or (ii) is exempt from filing pursuant to Rule 433(d)(5)(i), in each case 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), is herein called the “**Prospectus**.” Any reference herein to the Registration Statement, the Prospectus or any amendment or supplement thereto shall be deemed to refer to and include the documents incorporated by reference therein, and any reference herein to the terms “amend,” “amendment” or “supplement” with respect to the Registration Statement or the Prospectus shall be deemed to refer to and include the filing after the execution hereof of any document with the Commission deemed to be incorporated by reference therein. For purposes of this Agreement, all references to the Registration Statement, the Prospectus or to any amendment or supplement thereto shall be deemed to include any copy filed with the Commission pursuant to the Electronic Data Gathering Analysis and Retrieval System (“**EDGAR**”).

2. **Placements.** Each time that the Company wishes to issue and sell the Placement Shares hereunder (each, a “**Placement**”), it will notify RBCCM by email notice (or other method mutually agreed to in writing by the parties) (a “**Placement Notice**”) containing the parameters in accordance with which it desires the Placement Shares to be sold, which shall at a minimum include the number of Placement Shares to be issued, the time period during which sales are requested to be made, any limitation on the number of Placement Shares that may be sold in any one Trading Day (as defined in **Section 3**) and any minimum price below which sales may not be made, a form of which containing such minimum sales parameters necessary is attached hereto as **Schedule 1**. The Placement Notice shall originate from any of the individuals from the Company set forth on **Schedule 2** (with a copy to each of the other individuals from the Company listed on such schedule), and shall be addressed to each of the individuals from RBCCM set forth on **Schedule 2**, as such **Schedule 2** may be amended from time to time. The Placement Notice shall be effective upon receipt by RBCCM unless and until (i) in accordance with the notice requirements set forth in **Section 4**, RBCCM declines to accept the terms contained therein for any reason, in its sole discretion, (ii) the entire amount of the Placement Shares have been sold, (iii) in accordance with the notice requirements set forth in **Section 4**, the Company suspends or terminates the Placement Notice for any reason, in its sole discretion, (iv) the Company issues a subsequent Placement Notice with parameters superseding those on the earlier dated Placement Notice, or (v) this Agreement has been terminated under the provisions of **Section 11**. The amount of any discount, commission or other compensation to be paid by the Company to RBCCM in connection with the sale of the Placement Shares shall be calculated in accordance with the terms set forth in **Schedule 3**. It is expressly acknowledged and agreed that neither the Company nor RBCCM will have any obligation whatsoever with respect to a Placement or any Placement Shares unless and until the Company delivers a Placement Notice to RBCCM and RBCCM does not decline such Placement Notice pursuant to the terms set forth above, and then only upon the terms specified therein and herein. In the event of a conflict between the terms of this Agreement and the terms of a Placement Notice, the terms of the Placement Notice will control.

3. **Sale of Placement Shares by RBCCM.** Subject to the terms and conditions herein set forth, upon the Company's delivery of a Placement Notice, and unless the sale of the Placement Shares described therein has been declined, suspended, or otherwise terminated in accordance with the terms of this Agreement, RBCCM, for the period specified in the Placement Notice, will use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of the Nasdaq Stock Market LLC ("**Nasdaq**") to sell such Placement Shares up to the amount specified in such Placement Notice, and otherwise in accordance with the terms of such Placement Notice. RBCCM will provide written confirmation to the Company (including by email correspondence to each of the individuals of the Company set forth on **Schedule 2**, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply) no later than the opening of the Trading Day (as defined below) immediately following the Trading Day on which it has made sales of Placement Shares hereunder setting forth the number of Placement Shares sold on such day, the volume-weighted average price of the Placement Shares sold, and the Net Proceeds (as defined below) payable to the Company. RBCCM may sell Placement Shares by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415(a)(4) of the Securities Act, including without limitation sales made through Nasdaq, on any other existing trading market for the Common Stock or to or through a market maker. If expressly authorized by the Company in a Placement Notice, RBCCM may also sell Placement Shares in negotiated transactions. Notwithstanding the provisions of **Section 6(aaa)**, RBCCM shall not purchase Placement Shares for its own account as principal unless expressly authorized to do so by the Company in a Placement Notice. The Company acknowledges and agrees that (i) there can be no assurance that RBCCM will be successful in selling Placement Shares, and (ii) RBCCM will incur no liability or obligation to the Company or any other person or entity if it does not sell Placement Shares for any reason other than a failure by RBCCM to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such Placement Shares as required under this **Section 3**. For the purposes hereof, "**Trading Day**" means any day on which the Company's Common Stock is purchased and sold on Nasdaq.

4. **Suspension of Sales.**

(a) The Company or RBCCM may, upon notice to the other party in writing (including by email correspondence to each of the individuals of the other party set forth on **Schedule 2**, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply) or by telephone (confirmed immediately by verifiable facsimile transmission or email correspondence to each of the individuals of the other party set forth on **Schedule 2**), suspend any sale of Placement Shares; *provided, however*, that such suspension shall not affect or impair either party's obligations with respect to any Placement Shares sold hereunder prior to the receipt of such notice. Each of the parties agrees that no such notice under this **Section 4** shall be effective against the other unless it is made to one of the individuals named on **Schedule 2** hereto, as such schedule may be amended from time to time.



(b) Notwithstanding any other provision of this Agreement, during any period in which the Company is in possession of material non-public information, the Company and RBCCM agree that (i) no sale of Placement Shares will take place, (ii) the Company shall not request the sale of any Placement Shares, and (iii) RBCCM shall not be obligated to sell or offer to sell any Placement Shares.

(c) If either RBCCM or the Company has reason to believe that the exemptive provisions set forth in Rule 101(c)(1) of Regulation M under the Exchange Act are not satisfied with respect to the Common Stock, it shall promptly notify the other party, and RBCCM may, at its sole discretion, suspend sales of the Placement Shares under this Agreement.

5. Settlement.

(a) Settlement of Placement Shares. Unless otherwise specified in the applicable Placement Notice, settlement for sales of Placement Shares will occur on the second (2<sup>nd</sup>) Trading Day (or such earlier day as is industry practice for regular-way trading) following the date on which such sales are made (each, a “**Settlement Date**” and the first such settlement date, the “**First Delivery Date**”). The amount of proceeds to be delivered to the Company on a Settlement Date against receipt of the Placement Shares sold (the “**Net Proceeds**”) will be equal to the aggregate sales price received by RBCCM at which such Placement Shares were sold, after deduction for (i) RBCCM’s commission, discount or other compensation for such sales payable by the Company pursuant to Section 2 hereof, (ii) any other amounts due and payable by the Company to RBCCM hereunder pursuant to Section 7(g) (Expenses) hereof, and (iii) any transaction fees imposed by any governmental or self-regulatory organization in respect of such sales.

(b) Delivery of Placement Shares. On or before each Settlement Date, the Company will, or will cause its transfer agent to, electronically transfer the Placement Shares being sold by crediting RBCCM’s or its designee’s account (provided RBCCM shall have given the Company written notice of such designee at least one Trading Day prior to the Settlement Date) at The Depository Trust Company through its Deposit and Withdrawal at Custodian System or by such other means of delivery as may be mutually agreed upon by the parties hereto which in all cases shall be freely tradeable, transferable, registered shares in good deliverable form. On each Settlement Date, RBCCM will deliver the related Net Proceeds in same day funds to an account designated by the Company on, or prior to, the Settlement Date. If the Company, or its transfer agent (if applicable), defaults in its obligation to deliver duly authorized Placement Shares on a Settlement Date, the Company agrees that in addition to and in no way limiting the rights and obligations set forth in Section 9(a) (Indemnification and Contribution) hereto, it will (i) hold RBCCM harmless against any loss, claim, damage, or reasonable and documented expense (including reasonable and documented legal fees and expenses), as incurred, arising out of or in connection with such default by the Company and (ii) pay to RBCCM (without duplication) any commission, discount, or other compensation to which it would otherwise have been entitled absent such default.

6. **Representations and Warranties of the Company.** Except as disclosed in the Registration Statement or the Sales Prospectus, the Company represents and warrants to, and agrees with, RBCCM that, unless such representation, warranty or agreement specifies otherwise, as of each Applicable Time (as defined in Section 20):

(a) Other than as of the date of this Agreement, the Registration Statement has been declared effective by the Commission under the Securities Act. The Company has complied to the Commission's satisfaction with all requests of the Commission for additional or supplemental information related to the Registration Statement and the Prospectus. No stop order suspending the effectiveness of the Registration Statement is in effect and no proceedings for such purpose have been instituted or are pending or, to the knowledge of the Company, are contemplated or threatened by the Commission. The Company meets the requirements for use of Form S-3 under the Securities Act. The Commission has not issued any order preventing or suspending the use of the Prospectus or any free writing prospectus, and no proceeding for that purpose has been initiated or, to the knowledge of the Company, threatened by the Commission.

(b) As of the date of this Agreement, the proposed sale of the Placement Shares hereunder meets the requirements of General Instruction I.B.1 of Form S-3.

(c) The Prospectus when filed will comply or complied and, as amended or supplemented, if applicable, will comply in all material respects with the Securities Act. Each of the Registration Statement and any post-effective amendments or supplements thereto, at the time it becomes effective or its date, as applicable, will comply and as of each of the Settlement Dates, if any, will comply in all material respects with the Securities Act and did not and, as of each Settlement Date, if any, will not contain any 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 not misleading. The Prospectus, as amended or supplemented, as of its date, did not and, as of each of the Settlement Dates, if any, will not contain any untrue statement of a material fact or 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. The representations and warranties set forth in the two immediately preceding sentences do not apply to statements in or omissions from the Registration Statement or any post-effective amendment thereto, or the Prospectus, or any amendments or supplements thereto, made in reliance upon and in conformity with information furnished to the Company in writing by RBCCM expressly for use therein. There are no contracts or other documents required to be described in the Prospectus or to be filed as exhibits to the Registration Statement which have not been described or filed as required.

(d) The Company has delivered to RBCCM one complete copy of the Registration Statement and a copy of each consent and certificate of experts filed as a part thereof, and conformed copies of the Registration Statement (without exhibits) and the Prospectus, as amended or supplemented, in such quantities and at such places as RBCCM has reasonably requested.

(e) As of the date of this Agreement, the Company is an "emerging growth company," as defined in Section 2(a) of the Securities Act.

(f) The Company is not an “ineligible issuer,” as defined in Rule 405 under the Securities Act. The Company agrees to notify RBCCM promptly upon the Company becoming an “ineligible issuer.”

(g) The Company has not distributed and will not distribute, prior to the completion of RBCCM’s distribution of the Placement Shares, any offering material in connection with the offering and sale of the Placement Shares other than the Prospectus or the Registration Statement.

(h) The Company has the corporate power and authority to enter into and perform its obligations under this Agreement. This Agreement has been duly authorized, executed and delivered by, and is a valid and binding agreement of, the Company, enforceable in accordance with its terms, except as rights to indemnification hereunder may be limited by applicable law and except as the enforcement hereof may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or affecting the rights and remedies of creditors or by general equitable principles.

(i) The Placement Shares, when issued and delivered, will be duly authorized for issuance and sale pursuant to this Agreement and, when issued and delivered by the Company against payment therefor pursuant to this Agreement, will be duly authorized, validly issued, fully paid and nonassessable and will conform in all material respects to the description of the Common Stock in the Registration Statement and the Prospectus.

(j) The Company has been duly incorporated and is validly existing as a corporation in good standing 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 or the Prospectus (any such effect as described in clauses (i) or (ii), a “**Material Adverse Effect**”). The Company has no subsidiaries.

(k) 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 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 in the Prospectus. 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 or incorporated by reference in 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.

(l) The execution, delivery and performance of this Agreement by the Company, the issue and sale of the Placement Shares 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.

(m) Subject to any applicable restrictions imposed by General Instruction I.B.6 of Form S-3 (and the making of any additional filings with the Commission required as a result thereof) and except for such consents, approvals, authorizations, orders, registrations, qualifications or filings that may be required (i) by or with the Nasdaq Global Market in connection with the listing of the Placement Shares on the Nasdaq Global Market or the Financial Industry Regulatory Authority (“**FINRA**”) or (ii) pursuant to the Securities Act, the Exchange Act or any applicable state or foreign securities laws, no consent, approval, authorization or order of, or filing, license, 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 the Agreement by the Company, the offer, issuance and sale of the Placement Shares 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, if any) necessary for the Company to consummate the transactions contemplated by this Agreement have been obtained and are in effect.

(n) RSM US LLP, who have certified certain financial statements included or incorporated by reference in 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**”).

(o) The financial statements, together with the related notes, included or incorporated by reference in the Prospectus 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 Prospectus; 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 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 Prospectus. The summary and selected financial data, if any, included or incorporated by reference in the Prospectus 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 financial statements set forth in or incorporated by reference in the Prospectus and other financial information. All information contained or incorporated by reference in in 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.

(p) Other than as set forth or contemplated in the Prospectus: (i) the Company has not (1) sustained, since the date of the latest audited financial statements included or incorporated by reference in the Prospectus, 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, (2) incurred any material liability or obligation, direct or contingent, other than liabilities and obligations which were incurred in the ordinary course of business, (3) entered into any material transaction other than in the ordinary course of business or (4) declared or paid any dividends on its capital stock; and (ii) since the date of the latest audited financial statements included or incorporated by reference in the Prospectus, 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 upon conversion or reclassification of the Company’s convertible preferred stock, (4) the issuance of the Placement Shares, (5) shares of Common Stock issued pursuant to the terms of that certain Common Stock Sales Agreement, dated October 3, 2016, by and between the Company and Cowen and Company, LLC and (6) 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.

(q) 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 Prospectus 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.

(r) 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 (r), for any violations or defaults which, singularly or in the aggregate, would not have a Material Adverse Effect.

(s) 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 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 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 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.

(t) The Company is not and, after giving effect to the offering of the Placement Shares and the application of the proceeds thereof as described in 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.

(u) 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 in connection with the offering of the Placement Shares, 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 in connection with the offering of the Placement Shares.

(v) 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, show 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**”), in each case, necessary to conduct its business as currently conducted, and as currently proposed to be conducted and described in 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 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. 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.

(w) 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(v) 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 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 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.



(x) The documents incorporated or deemed to be incorporated by reference in the Prospectus, at the time they were or hereafter are filed with the Commission, complied and will comply in all material respects with the requirements of the Exchange Act, and, when read together with the other information in the Prospectus, at the Settlement Dates, will 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 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.

(y) 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 material 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.

(z) 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.

(aa) None of the Company or, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person associated with or acting on behalf of the Company, any director, officer, agent, 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 Placement Shares hereunder, or lend, contribute or otherwise make available such proceeds to any 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.

(bb) 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.

(cc) 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 (cc), 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, 2017 the Company has not incurred any liability for taxes other than in the ordinary course of business.

(dd) 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 Prospectus.

(ee) The Company maintains a system of internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) 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 incorporated by reference in the Prospectus is accurate. 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. As of the date of this Agreement, 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.

(ff) As of the date of this Agreement, and as of each date that the Company files an annual report on Form 10-K under the Exchange Act, a member of the Audit Committee has confirmed to the Chief Executive Officer or Chief Financial Officer of the Company that 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 would reasonably be expected to 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.

(gg) 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.

(hh) The Company maintains disclosure controls and procedures (as such is defined in Rule 13a-15(e) under the Exchange Act) 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 are effective.

(ii) As of the date hereof and as of each date that the Company files an annual report on Form 10-K under the Exchange Act or files its quarterly reports on Form 10-Q under the Exchange Act, the minute books of the Company have been made available to RBCCM and counsel for RBCCM, 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 and (ii) accurately in all material respects reflect all transactions referred to in such minutes; provided, however, that no minute books have been made available to RBCCM for meetings subsequent to July 10, 2018, 2018, and a summary of the actions taken thereat has been communicated to RBCCM and counsel for RBCCM, as of the date hereof.

(jj) There is no franchise agreement, lease, contract, or other agreement or document required by the Securities Act to be described in the Prospectus or to be filed by the Company with the Commission which is not so described or filed therewith as required; and all descriptions of any such franchise agreements, leases, contracts, or other agreements or documents, if any, contained in the Prospectus are accurate descriptions of such documents in all material respects. Other than as described in the Prospectus, no such franchise agreement, lease, contract or other agreement has been terminated, otherwise than by expiration of the agreement on its stated termination date, or as a result of all parties completing their obligations under such agreement, and such termination is material to the Company.

(kk) 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 Prospectus and which is not so described.

(ll) 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. There are no persons with registration rights or similar rights to have any securities registered by the Company under the Securities Act.

(mm) 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 Placement Shares 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 Placement Shares to be considered a “purpose credit” within the meanings of Regulation T, U or X of the Federal Reserve Board.

(nn) The Company is not a party to any contract, agreement or understanding with any person that would give rise to a valid claim against the Company or RBCCM for a brokerage commission, finder’s fee or like payment in connection with the offering and sale of the Placement Shares or any transaction contemplated by this Agreement or the Sales Prospectus.

(oo) The exercise price of each option issued under the Company’s stock option or other employee benefit plans has been no less than the fair market value of a share of common stock as determined on the date of grant of such option. All grants of options were validly issued and properly approved by the board of directors of the Company (or a duly authorized committee thereof) in material compliance with all applicable laws and regulations and recorded in the Company’s financial statements in accordance with GAAP and, to the Company’s Knowledge, no such grants involved “back dating,” “forward dating” or similar practice with respect to the effective date of grant.

(pp) 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.

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

(rr) 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.

(ss) The Company is in compliance in all material respects with all applicable corporate governance requirements set forth in the rules of Nasdaq 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 Nasdaq not currently in effect upon the Company at all times after the effectiveness of such requirements.

(tt) 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 of 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.

(uu) 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 under the Securities Act) 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 Prospectus which have not been described as required.

(vv) 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. 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.

(ww) The statistical and market related data included or incorporated by reference in 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.

(xx) 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, RBCCM 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 RBCCM to properly identify its clients.

(yy) The Company is not Insolvent (as defined below). For purposes of this Section 6(yy), "**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.

(zz) The interactive data in eXtensible Business Reporting Language incorporated by reference in the Prospectus 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.

(aaa) 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 (y) 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.

(bbb) The Company acknowledges and agrees that RBCCM has informed the Company that RBCCM may, to the extent permitted under the Securities Act and the Exchange Act, purchase and sell shares of Common Stock for its own account while this Agreement is in effect;

Any certificate signed by an officer of the Company and delivered to RBCCM or to counsel for RBCCM in connection with this Agreement shall be deemed to be a representation and warranty by the Company to RBCCM as to the matters set forth therein.

The Company acknowledges that RBCCM and, for purposes of the opinions to be delivered pursuant to Section 7 hereof, counsel to the Company and counsel to RBCCM, will rely upon the accuracy and truthfulness of the foregoing representations and hereby consents to such reliance.

7. Covenants of the Company. The Company covenants and agrees with RBCCM that:

(a) Registration Statement Amendments. After the date of this Agreement and during any period in which a Sales Prospectus is required to be delivered by RBCCM under the Securities Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), (i) the Company will notify RBCCM promptly of the time when any subsequent amendment to the Registration Statement, other than documents incorporated by reference, has been filed with the Commission and/or has become effective or any subsequent supplement to the Prospectus has been filed and of any request by the Commission for any amendment or supplement to the Registration Statement or Prospectus or for additional information (insofar as it relates to the transactions contemplated hereby), (ii) the Company will prepare and file with the Commission, promptly upon RBCCM's reasonable request, any amendments or supplements to the Registration Statement or Prospectus that, in RBCCM's reasonable opinion, may be necessary or advisable in connection with the distribution of the Placement Shares by RBCCM (*provided, however*, that the failure of RBCCM to make such request shall not relieve the Company of any obligation or liability hereunder, or affect

RBCCM's right to rely on the representations and warranties made by the Company in this Agreement and *provided, further*, that the only remedy RBCCM shall have with respect to the failure to make such filing will be to cease making sales under this Agreement until such amendment or supplement is filed); (iii) the Company will not file any amendment or supplement to the Registration Statement or Prospectus, other than documents incorporated by reference, relating to the Placement Shares or a security convertible into the Placement Shares unless a copy thereof has been submitted to RBCCM within a reasonable period of time before the filing and RBCCM has not reasonably objected thereto (*provided, however*, that the failure of RBCCM to make such objection shall not relieve the Company of any obligation or liability hereunder, or affect RBCCM's right to rely on the representations and warranties made by the Company in this Agreement and *provided, further*, that the only remedy RBCCM shall have with respect to the failure to make such filing will be to cease making sales under this Agreement) and the Company will furnish to RBCCM at the time of filing thereof a copy of any document that upon filing is deemed to be incorporated by reference into the Registration Statement or Prospectus, except for those documents available via EDGAR; and (iv) the Company will cause each amendment or supplement to the Prospectus, other than documents incorporated by reference, to be filed with the Commission as required pursuant to the applicable paragraph of Rule 424(b) of the Securities Act.

(b) Notice of Commission Stop Orders. The Company will advise RBCCM, promptly after it receives notice or obtains knowledge thereof, of the issuance or threatened issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement, of the suspension of the qualification of the Placement Shares for offering or sale in any jurisdiction, or of the initiation or threatening of any proceeding for any such purpose; and it will promptly use its commercially reasonable efforts to prevent the issuance of any stop order or to obtain its withdrawal if such a stop order should be issued.

(c) Delivery of Prospectus; Subsequent Changes. During any period in which the Sales Prospectus is required to be delivered by RBCCM under the Securities Act with respect to a pending sale of the Placement Shares, (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), the Company will use its commercially reasonable efforts to comply with all requirements imposed upon it by the Securities Act, as from time to time in force, and to file on or before their respective due dates (taking into account any extensions available under the Exchange Act) all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Sections 13(a), 13(c), 14, 15(d) or any other provision of or under the Exchange Act. If during such period any event occurs as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is necessary to amend or supplement the Registration Statement or Prospectus to comply with the Securities Act, the Company will promptly notify RBCCM to suspend the offering of Placement Shares during such period and the Company will promptly amend or supplement the Registration Statement or Prospectus (at the expense of the Company) so as to correct such statement or omission or effect such compliance; *provided, however*, that the Company may delay the filing of any amendment or supplement, if in the judgment of the Company, it is in the best interest of the Company.



(d) Listing of Placement Shares. During any period in which the Sales Prospectus is required to be delivered by RBCCM under the Securities Act with respect to a pending sale of the Placement Shares (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), the Company will use its commercially reasonable efforts to cause the Placement Shares to be listed on Nasdaq and to qualify the Placement Shares for sale under the securities laws of such jurisdictions as RBCCM reasonably designates and to continue such qualifications in effect so long as required for the distribution of the Placement Shares; *provided, however*, that the Company shall not be required in connection therewith to qualify as a foreign corporation or dealer in securities or file a general consent to service of process in any jurisdiction.

(e) Delivery of Registration Statement and Prospectus. The Company will furnish to RBCCM and its counsel (at the expense of the Company) copies of (i) the Registration Statement and the Prospectus (including all documents incorporated by reference therein) and (ii) all amendments and supplements to the Registration Statement or Prospectus that are filed with the Commission during any period in which the Sales Prospectus is required to be delivered under the Securities Act (including all documents filed with the Commission during such period that are deemed to be incorporated by reference therein), in each case as soon as reasonably practicable and in such quantities as RBCCM may from time to time reasonably request and, at RBCCM's request, will also furnish copies of the Prospectus to each exchange or market on which sales of the Placement Shares may be made; *provided, however*, that the Company shall not be required to furnish any document (other than the Prospectus) to RBCCM or its counsel to the extent such document is available on EDGAR.

(f) Earnings Statement. The Company will make generally available to its security holders as soon as practicable, but in any event not later than 15 months after the end of the Company's current fiscal quarter, an earnings statement covering a 12-month period that satisfies the provisions of Section 11(a) and Rule 158 of the Securities Act.

(g) Expenses. The Company, whether or not the transactions contemplated hereunder are consummated or this Agreement is terminated, in accordance with the provisions of Section 11 hereunder, will pay the following expenses all incident to the performance of its obligations hereunder, including, but not limited to, expenses relating to (i) the preparation, printing and filing of the Registration Statement and each amendment and supplement thereto, of each Prospectus and of each amendment and supplement thereto, (ii) the preparation, issuance and delivery of the Placement Shares, (iii) the qualification of the Placement Shares under securities laws in accordance with the provisions of Section 7(d) of this Agreement, including filing fees (provided, however, that any fees or disbursements of counsel for RBCCM in connection therewith shall be paid by RBCCM except as set forth in (vii) below), (iv) the printing and delivery to RBCCM of copies of the Prospectus and any amendments or supplements thereto, and of this Agreement, (v) the fees and expenses incurred in connection with the listing or qualification of the Placement Shares for trading on Nasdaq, (vi) the filing fees and expenses, if any, of the Commission, (vii) the filing fees and reasonable associated legal expenses of RBCCM's outside counsel for filings with the FINRA Corporate Financing Department, such legal expense reimbursement not to exceed \$10,000 and, (viii) the reasonable fees and disbursements of RBCCM's counsel in an amount not to exceed \$50,000.

(h) Use of Proceeds. The Company will use the Net Proceeds as described in the Prospectus in the section entitled "Use of Proceeds."

(i) Notice of Other Sales. During the pendency of any Placement Notice given hereunder, and for three (3) Trading Days following the termination of any Placement Notice given hereunder, the Company shall provide RBCCM notice as promptly as reasonably possible before it offers to sell, contracts to sell, sells, grants any option to sell or otherwise disposes of any shares of Common Stock (other than Placement Shares offered pursuant to the provisions of this Agreement) or securities convertible into or exchangeable for Common Stock, warrants or any rights to purchase or acquire Common Stock; *provided*, that such notice shall not be required in connection with the (i) issuance, grant or sale of Common Stock, options or warrants to purchase shares of Common Stock, restricted shares of Common Stock, restricted stock units or other equity awards, or Common Stock issuable upon the exercise of options or other equity awards pursuant to the any stock option, stock bonus or other stock plan or arrangement described in the Prospectus, (ii) the issuance of securities in connection with an acquisition, merger or sale or purchase of assets, (iii) the issuance or sale of Common Stock pursuant to any dividend reinvestment plan that the Company may adopt from time to time provided the implementation of such is disclosed to RBCCM in advance, (iv) any shares of Common Stock issuable upon the exchange, conversion or redemption of securities or the exercise of warrants, options, convertible debt or other rights in effect or outstanding or (v) the issuance or sale of Common Stock, or securities convertible into or exercisable for Common Stock, offered and sold in a privately negotiated transaction to vendors, customers, strategic partners or potential strategic partners conducted in a manner so as not to be integrated with the offering of Common Stock hereby. Notwithstanding the foregoing provisions, nothing herein shall be construed to restrict the Company's ability, or require the Company to provide notice to RBCCM, to file a registration statement under the Securities Act.

(j) Change of Circumstances. The Company will, at any time during a fiscal quarter in which the Company intends to tender a Placement Notice or sell Placement Shares, advise RBCCM promptly after it shall have received notice or obtained knowledge thereof, of any information or fact that would alter or affect in any material respect any opinion, certificate, letter or other document provided to RBCCM pursuant to this Agreement.

(k) Due Diligence Cooperation. During the term of this Agreement, the Company will cooperate with any reasonable due diligence review conducted by RBCCM or its agents in connection with the transactions contemplated hereby, including, without limitation, providing information and making available documents and senior corporate officers, during regular business hours and at the Company's principal offices, as RBCCM may reasonably request.

(l) Required Filings Relating to Placement of Placement Shares. The Company agrees that on such dates as the Securities Act shall require, the Company will (i) file a prospectus supplement with the Commission under the applicable paragraph of Rule 424(b) under the Securities Act (each and every filing under Rule 424(b), a "**Filing Date**"), which prospectus supplement will set forth, within the relevant period, the amount of Placement Shares sold through RBCCM, the Net Proceeds to the Company and the compensation payable by the Company to RBCCM with respect to such Placement Shares, and (ii) deliver such number of copies of each such prospectus supplement to each exchange or market on which such sales were effected as may be required by the rules or regulations of such exchange or market.

(m) **Representation Dates; Certificate.** On or prior to the First Delivery Date and each time the Company subsequently thereafter (i) amends or supplements the Registration Statement or the Sales Prospectus (other than a Sales Prospectus filed in accordance with Section 7(l) of this Agreement) by means of a post-effective amendment, sticker, or supplement but not by means of incorporation of document(s) by reference to the Registration Statement or the Sales Prospectus; (ii) files an annual report on Form 10-K under the Exchange Act; (iii) files its quarterly reports on Form 10-Q under the Exchange Act; or (iv) files a report on Form 8-K containing amended financial information (other than information “furnished” pursuant to Items 2.02 or 7.01 of Form 8-K) under the Exchange Act (each date of filing of one or more of the documents referred to in clauses (i) through (iv) shall be a “**Representation Date**”), the Company shall furnish RBCCM with a certificate, in the form attached hereto as Exhibit 7(m), within three (3) Trading Days of any Representation Date if requested by RBCCM. The requirement to provide a certificate under this Section 7(m) shall be automatically waived for any Representation Date occurring at a time at which no Placement Notice is pending, which waiver shall continue until the earlier to occur of the date the Company delivers a Placement Notice hereunder (which for the calendar quarter in which such Placement Notice is delivered shall be considered a Representation Date) and the next occurring Representation Date; *provided, however*, that such waiver shall not apply for any Representation Date on which the Company files its annual report on Form 10-K. Notwithstanding the foregoing, if the Company subsequently decides to sell Placement Shares following a Representation Date when the Company relied on such waiver and did not provide RBCCM with a certificate under this Section 7(m), then before the Company delivers the Placement Notice or RBCCM sells any Placement Shares, the Company shall provide RBCCM with a certificate, in the form attached hereto as Exhibit 7(m), dated the date of the Placement Notice.

(n) **Legal Opinions.** On or prior to the First Delivery Date and within three (3) Trading Days of each Representation Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit 7(m) for which no waiver is applicable, the Company shall cause to be furnished to RBCCM a written opinion of each of Cooley LLP and McAndrews, Held & Malloy, Ltd. (together, “Company Counsel”), or other counsel satisfactory to RBCCM, in form and substance satisfactory to RBCCM and its counsel, dated the date that the opinion is required to be delivered; *provided, however*, that in lieu of such opinions for subsequent Representation Dates, such counsels may furnish RBCCM with a letter (a “**Reliance Letter**”) to the effect that RBCCM may rely on a prior opinion delivered by such firm under this Section 7(n) to the same extent as if it were dated the date of such letter (except that statements in such prior opinion shall be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented at such Representation Date).

(o) **Comfort Letter.** On or prior to the First Delivery Date and within three (3) Trading Days of each Representation Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit 7(m) for which no waiver is applicable, the Company shall cause its independent accountants to furnish RBCCM letters (the “**Comfort Letters**”), dated the date the Comfort Letter is delivered, in form and substance satisfactory to RBCCM, (i) confirming that they are an independent registered public accounting firm within the meaning of the Securities Act and the PCAOB, (ii) stating, as of such date, the conclusions and findings of such firm with respect to the financial information and other matters ordinarily covered by accountants’ “comfort letters” to RBCCM in connection with registered public offerings (the first such letter, the “**Initial Comfort Letter**”) and (iii) updating the Initial Comfort Letter with any information that would have been included in the Initial Comfort Letter had it been given on such date and modified as necessary to relate to the Registration Statement and the Prospectus, as amended and supplemented to the date of such letter.

(p) Market Activities. The Company will not, directly or indirectly, (i) take any action designed to cause or result in, or that constitutes or might reasonably be expected to constitute, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Placement Shares or (ii) sell, bid for, or purchase the Common Stock to be issued and sold pursuant to this Agreement, or pay anyone any compensation for soliciting purchases of the Placement Shares other than RBCCM; provided, however, that the Company may bid for and purchase shares of its common stock in accordance with Rule 10b-18 under the Exchange Act.

(q) Insurance. The Company shall maintain, or cause to be maintained, insurance in such amounts and covering such risks as is reasonable and customary for the business for which it is engaged.

(r) Compliance with Laws. The Company will use commercially reasonable efforts to maintain, or cause to be maintained, all material environmental permits, licenses and other authorizations required by federal, state and local law in order to conduct its business as described in the Prospectus, and the Company shall conduct its businesses, or cause its business to be conducted, in substantial compliance with such permits, licenses and authorizations and with applicable environmental laws, except where the failure to maintain or be in compliance with such permits, licenses and authorizations could not reasonably be expected to result in a Material Adverse Effect.

(s) Investment Company Act. The Company will conduct its affairs in such a manner so as to reasonably ensure that it will not be or become, at any time prior to the termination of this Agreement, an “investment company,” as such term is defined in the Investment Company Act, assuming no change in the Commission’s current interpretation as to entities that are not considered an investment company.

(t) Securities Act and Exchange Act. The Company will use its best efforts to comply with all requirements imposed upon it by the Securities Act and the Exchange Act as from time to time in force, so far as necessary to permit the continuance of sales of, or dealings in, the Placement Shares as contemplated by the provisions hereof and the Prospectus.

(u) No Offer to Sell. Other than the Prospectus and any free writing prospectus (as defined in Rule 405 under the Securities Act) approved in advance by the Company and RBCCM in its capacity as principal or agent hereunder, neither RBCCM nor the Company (including its agents and representatives, other than RBCCM in its capacity as such) will make, use, prepare, authorize, approve or refer to any written communication (as defined in Rule 405 under the Securities Act), required to be filed with the Commission, that constitutes an offer to sell or solicitation of an offer to buy Common Stock hereunder.

(v) Sarbanes-Oxley Act. The Company will use its best efforts to comply with all effective applicable provisions of the Sarbanes-Oxley Act.

(w) Emerging Growth Company Status. The Company will promptly notify RBCCM if the Company ceases to be an Emerging Growth Company at any time during the term of this Agreement.

8. Conditions to RBCCM's Obligations. The obligations of RBCCM hereunder with respect to a Placement will be subject to the continuing accuracy and completeness of the representations and warranties made by the Company herein, to the due performance by the Company of its obligations hereunder, to the completion by RBCCM of a due diligence review satisfactory to RBCCM in its reasonable judgment, and to the continuing satisfaction (or waiver by RBCCM in its sole discretion) of the following additional conditions:

(a) Registration Statement Effective. The Registration Statement shall be effective and shall be available for the sale of all Placement Shares contemplated to be issued by any Placement Notice.

(b) No Material Notices. None of the following events shall have occurred and be continuing: (i) receipt by the Company of any request for additional information from the Commission or any other federal or state governmental authority during the period of effectiveness of the Registration Statement, the response to which would require any post-effective amendments or supplements to the Registration Statement or the Prospectus; (ii) the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of the Registration Statement or the initiation of any proceedings for that purpose; (iii) receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Placement Shares for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose; or (iv) the occurrence of any event that makes any material statement made in the Registration Statement or the Prospectus or any material document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires the making of any changes in the Registration Statement, related Prospectus or such documents so that, in the case of the Registration Statement, it will not contain any materially 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, that in the case of the Prospectus, it will not contain any materially 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.

(c) No Misstatement or Material Omission. RBCCM shall not have advised the Company that the Registration Statement or Prospectus, or any amendment or supplement thereto, contains an untrue statement of fact that in RBCCM's reasonable opinion is material, or omits to state a fact that in RBCCM's reasonable opinion is material and is required to be stated therein or is necessary to make the statements therein not misleading.

(d) Material Changes. Except as contemplated in the Prospectus, or disclosed in the Company's reports filed with the Commission, there shall not have been any Material Adverse Effect or any development that could reasonably be expected to result in a Material Adverse Effect.

(e) Company Counsel Legal Opinion. RBCCM shall have received the opinions of Company Counsel required to be delivered pursuant to Section 7(n) on or before the date on which such delivery of such opinion is required pursuant to Section 7(n).

(f) RBCCM Counsel Legal Opinion. RBCCM shall have received from Morgan, Lewis & Bockius LLP, counsel for RBCCM, such opinion or opinions, on or before the date on which the delivery of the Company Counsel legal opinion is required pursuant to Section 7(n), with respect to such matters as RBCCM 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.

(g) Comfort Letter. RBCCM shall have received the Comfort Letter required to be delivered pursuant to Section 7(o) on or before the date on which such delivery of such Comfort Letter is required pursuant to Section 7(o).

(h) Representation Certificate. RBCCM shall have received the certificate required to be delivered pursuant to Section 7(m) on or before the date on which delivery of such certificate is required pursuant to Section 7(m).

(i) Secretary's Certificate. On or prior to the First Delivery Date, RBCCM shall have received a certificate, signed on behalf of the Company by its corporate Secretary, in form and substance satisfactory to RBCCM and its counsel.

(j) No Suspension. Trading in the Common Stock shall not have been suspended on Nasdaq.

(k) Other Materials. On each date on which the Company is required to deliver a certificate pursuant to Section 7(m), the Company shall have furnished to RBCCM such appropriate further information, certificates and documents as RBCCM may have reasonably requested. All such opinions, certificates, letters and other documents shall have been in compliance with the provisions hereof. The Company will furnish RBCCM with such conformed copies of such opinions, certificates, letters and other documents as RBCCM shall have reasonably requested.

(l) Securities Act Filings Made. All filings with the Commission required by Rule 424 under the Securities Act to have been filed prior to the issuance of any Placement Notice hereunder shall have been made within the applicable time period prescribed for such filing by Rule 424.

(m) Approval for Listing. The Placement Shares shall either have been (i) approved for listing on Nasdaq, subject only to notice of issuance, or (ii) the Company shall have filed an application for listing of the Placement Shares on Nasdaq at, or prior to, the issuance of any Placement Notice.

(n) No Termination Event. There shall not have occurred any event that would permit RBCCM to terminate this Agreement pursuant to Section 11(a).

9. Indemnification and Contribution.

(a) The Company agrees to indemnify, defend and hold harmless RBCCM, its partners, employees, agents, members, directors and officers, any person who controls RBCCM within the meaning of Section 15 of the Act or Section 20 of the Exchange Act and any “affiliate” (within the meaning of Rule 405 under the Act) of RBCCM that has, or is alleged to have, participated in the distribution of Shares, 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 RBCCM or any such person may incur under the 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 RBCCM 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 9 being deemed to include the Prospectus and any amendments or supplements to it), in any “issuer information” (as defined in Rule 433 under the Act) of the Company, in any road show as defined under Rule 433(h) under the 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 RBCCM 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 RBCCM or any such person in respect of which indemnity may be sought against the Company pursuant to the foregoing paragraph, RBCCM 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 RBCCM 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. RBCCM 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 RBCCM 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 RBCCM 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) RBCCM 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 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 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 RBCCM furnished in writing by or on behalf of RBCCM to the Company expressly for use with reference to RBCCM 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 RBCCM furnished in writing by or on behalf of RBCCM to the Company expressly for use with reference to RBCCM 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 RBCCM pursuant to the foregoing paragraph, the Company or such person shall promptly notify RBCCM in writing of the institution of such Proceeding and RBCCM 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 RBCCM shall not relieve RBCCM from any liability which RBCCM 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 RBCCM in connection with the defense of such Proceeding or RBCCM 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 RBCCM (in which case RBCCM shall not have the right to direct the defense of such Proceeding on behalf of the indemnified party or parties, but RBCCM may employ counsel and participate in the defense thereof but the fees and expenses of such counsel shall be at the expense of RBCCM), in any of which events such reasonable and documented fees and expenses shall be borne by RBCCM and paid as incurred (it being understood, however, that RBCCM 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). RBCCM shall not be liable for any settlement of any such Proceeding effected without the written consent of RBCCM but, if settled with the written consent of RBCCM or if there be a final judgment for the plaintiff, RBCCM agrees 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 RBCCM to reimburse the indemnified party for reasonable and documented fees and expenses of counsel as contemplated by the second sentence of this paragraph, then RBCCM 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 RBCCM of the aforesaid request, (ii) RBCCM 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 RBCCM at least 30 days' prior notice of its intention to settle. RBCCM 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 9 is unavailable to an indemnified party under subsections (a) and (b) of this Section 9 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 RBCCM, on the other hand, from the offering of the Shares 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 RBCCM, 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 RBCCM, 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 RBCCM hereunder, bear to the aggregate public offering price of the Shares. The relative fault of the Company, on the one hand, and of RBCCM, 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 RBCCM 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 RBCCM agree that it would not be just and equitable if contributions pursuant to this Section 9 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 9, RBCCM 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 Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

(e) The Company and RBCCM 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 Shares, or in connection with the Registration Statement or the Prospectus; provided, that, the omission to so notify shall not relieve the Company or RBCCM from any liability which such party may have to the Company or RBCCM, as applicable, or any other person hereunder except to the extent the Company or RBCCM, as applicable, was materially prejudiced by such omission, which shall include without limitation the loss of any material rights or defenses resulting therefrom.

10. Representations and Agreements to Survive Delivery. The indemnity and contribution agreements contained in Section 9 of this Agreement and all representations and warranties of the Company herein or in certificates delivered pursuant hereto shall survive, as of their respective dates, regardless of (i) any investigation made by or on behalf of RBCCM, any controlling persons, or the Company (or any of their respective officers, directors or controlling persons), (ii) delivery and acceptance of the Placement Shares and payment therefor or (iii) any termination of this Agreement.

11. Termination.

(a) RBCCM shall have the right by giving written notice as hereinafter specified at any time to terminate this Agreement if: (i) any Material Adverse Effect, or any development that could reasonably be expected to result in a Material Adverse Effect has occurred that, in the reasonable judgment of RBCCM, may materially impair the ability of RBCCM to sell the Placement Shares hereunder; (ii) the Company shall have failed, refused or been unable to perform any agreement on its part to be performed hereunder; *provided, however,* in the case of any failure of the Company to deliver (or cause another person to deliver) any certification, opinion, or letter required under Sections 7(m), 7(n), or 7(o), RBCCM's right to terminate shall not arise unless such failure to deliver (or cause to be delivered) continues for more than thirty (30) days from the date such delivery was required; (iii) any other condition of RBCCM's obligations hereunder is not fulfilled; *provided, however,* RBCCM's right to terminate pursuant to this Section 11(a)(iii) shall not arise unless such condition is not fulfilled within thirty (30) days after the date the Company is provided with written notice by RBCCM that such condition has not been fulfilled; or (iv) any suspension or limitation of trading in the Placement Shares or in securities generally on Nasdaq shall have occurred. Any such termination shall be without liability of any party to any other party except that the provisions of Section 7(g) (Expenses), Section 9 (Indemnification and Contribution), Section 10 (Representations and Agreements to Survive Delivery), Section 17 (Applicable Law; Consent to Jurisdiction) and Section 17 (Waiver of Jury Trial) hereof shall remain in full force and effect notwithstanding such termination. If RBCCM elects to terminate this Agreement as provided in this Section 11(a), RBCCM shall provide the required written notice as specified in Section 12 (Notices).

(b) The Company shall have the right, by giving ten (10) days notice as hereinafter specified to terminate this Agreement in its sole discretion at any time after the date of this Agreement. Any such termination shall be without liability of any party to any other party except that the provisions of Section 7(g), Section 9, Section 10, Section 16 and Section 17 hereof shall remain in full force and effect notwithstanding such termination.

(c) RBCCM shall have the right, by giving ten (10) days notice as hereinafter specified to terminate this Agreement in its sole discretion at any time after the date of this Agreement. Any such termination shall be without liability of any party to any other party except that the provisions of Section 7(g), Section 10, Section 11, Section 17 and Section 18 hereof shall remain in full force and effect notwithstanding such termination.

(d) Unless earlier terminated pursuant to this Section 11, this Agreement shall automatically terminate upon the issuance and sale of all of the Placement Shares through RBCCM on the terms and subject to the conditions set forth herein; *provided* that the provisions of Section 7(g), Section 9, Section 10, Section 16 and Section 17 hereof shall remain in full force and effect notwithstanding such termination.

(e) This Agreement shall remain in full force and effect unless terminated pursuant to Sections 11(a), (b), (c), or (d) above or otherwise by mutual agreement of the parties; *provided, however*, that any such termination by mutual agreement shall in all cases be deemed to provide that Section 7(g), Section 9, Section 10, Section 16 and Section 17 shall remain in full force and effect.

(f) Any termination of this Agreement shall be effective on the date specified in such notice of termination; *provided, however*, that such termination shall not be effective until the close of business on the date of receipt of such notice by RBCCM or the Company, as the case may be. If such termination shall occur prior to the Settlement Date for any sale of Placement Shares, such Placement Shares shall settle in accordance with the provisions of this Agreement.

(g) Subject to the additional limitations set forth in Section 7 of this Agreement and notwithstanding anything herein to the contrary, in the event of termination of this Agreement prior to the sale of any Placement Shares, RBCCM will only be entitled to reimbursement of its out of pocket expenses actually incurred.

12. Notices. All notices or other communications required or permitted to be given by any party to any other party pursuant to the terms of this Agreement shall be in writing, unless otherwise specified in this Agreement, and if sent to RBCCM, shall be delivered to RBCCM at RBC Capital Markets, LLC, Attention: Andrew Jones, 200 Vesey Street, 8th Floor, New York, New York 10281, Fax No.: (212) 428-6260; or if sent to the Company, shall be delivered to KemPharm, Inc., 1180 Celebration Blvd., Suite 103, Celebration, FL 34747, Attention: R. LaDuane Clifton, email: lclifton@kempharm.com, with a copy (which shall not constitute notice) to Cooley LLP, 1299 Pennsylvania Avenue NW #700, Washington, DC 20004, Attention: Brent B. Siler. Each party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose. Each such notice or other communication shall be deemed given (i) when delivered personally or by verifiable facsimile transmission (with an original to follow) on or before 4:30 p.m., New York City time, on a Business Day (as defined below), or, if such day is not a Business Day on the next succeeding Business Day, (ii) on the next Business Day after timely delivery to a nationally-recognized overnight courier and (iii) on the Business Day actually received if deposited in the U.S. mail (certified or registered mail, return receipt requested, postage prepaid). For purposes of this Agreement, "**Business Day**" shall mean any day on which Nasdaq and commercial banks in the City of New York are open for business.

13. Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the Company and RBCCM and their respective successors and the affiliates, controlling persons, officers and directors referred to in Section 9 hereof. References to any of the parties contained in this Agreement shall be deemed to include the successors and permitted assigns of such party. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assigns any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement. Neither party may assign its rights or obligations under this Agreement without the prior written consent of the other party; *provided, however*, that RBCCM may assign its rights and obligations hereunder to an affiliate of RBCCM without obtaining the Company's consent so long as such affiliate is a registered broker dealer.

14. Adjustments for Share Splits. The parties acknowledge and agree that all share-related numbers contained in this Agreement shall be adjusted to take into account any share split, share dividend or similar event effected with respect to the Common Stock.

15. Entire Agreement; Amendment; Severability. This Agreement (including all schedules and exhibits attached hereto and Placement Notices issued pursuant hereto) constitutes the entire agreement and supersedes all other prior and contemporaneous agreements and undertakings, both written and oral, among the parties hereto with regard to the subject matter hereof. Neither this Agreement nor any term hereof may be amended except pursuant to a written instrument executed by the Company and RBCCM, *provided, however*, that Schedule 2 attached hereto may be amended by either party upon written notice to the other party pursuant to Section 12. In the event that any one or more of the provisions contained herein, or the application thereof in any circumstance, is held invalid, illegal or unenforceable as written by a court of competent jurisdiction, then such provision shall be given full force and effect to the fullest possible extent that it is valid, legal and enforceable, and the remainder of the terms and provisions herein shall be construed as if such invalid, illegal or unenforceable term or provision was not contained herein, but only to the extent that giving effect to such provision and the remainder of the terms and provisions hereof shall be in accordance with the intent of the parties as reflected in this Agreement.

16. Applicable Law; Consent to Jurisdiction. This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the principles of conflicts of laws. Each party hereby irrevocably submits to the non-exclusive jurisdiction of the state and federal courts sitting in the City of New York, borough of Manhattan, for the adjudication of any dispute hereunder or in connection with any transaction contemplated hereby, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof (certified or registered mail, return receipt requested) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law.

17. Waiver of Jury Trial. The Company and RBCCM each hereby irrevocably waives any right it may have to a trial by jury in respect of any claim based upon or arising out of this Agreement or any transaction contemplated hereby.

18. Absence of Fiduciary Relationship. The Company acknowledges and agrees that:

(a) RBCCM has been retained solely to act as sales agent in connection with the sale of the Common Stock and that no fiduciary, advisory or agency relationship between the Company and RBCCM has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether RBCCM has advised or is advising the Company on other matters;

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

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

19. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery of an executed Agreement by one party to the other may be made by facsimile or other electronic transmission.

20. Definitions. As used in this Agreement, the following term has the meaning set forth below:

(a) “*Applicable Time*” means the date of this Agreement, each Representation Date, the date on which a Placement Notice is given, and any date on which Placement Shares are sold hereunder.

**[Remainder of Page Intentionally Blank]**

If the foregoing correctly sets forth the understanding between the Company and RBCCM, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement between the Company and RBCCM.

Very truly yours,

**RBC CAPITAL MARKETS, LLC**

By: \_\_\_\_\_  
Name:  
Title:

**ACCEPTED as of the date  
first-above written:**

**KEMPHARM, INC.**

By: \_\_\_\_\_  
Name: R. LaDuane Clifton  
Title: Chief Financial Officer

[Signature Page to Sales Agreement]

**FORM OF PLACEMENT NOTICE**

From: [                     ]  
Cc: [                     ]  
To: [                     ]  
Subject: RBCCM at the Market Offering—Placement Notice

Gentlemen:

Pursuant to the terms and subject to the conditions contained in the Sales Agreement between KemPharm, Inc. (the “Company”), and RBC Capital Markets, LLC (“RBCCM”) dated September 4, 2018 (the “Agreement”), I hereby request on behalf of the Company RBCCM sell up to [                  ] shares of the Company’s common stock, par value \$0.0001 per share, at a minimum market price of \$[          ] per share. Sales should begin on the date of this Notice and shall continue until [DATE] [all shares are sold].



**Company Individuals:**

Travis C. Mickle  
R. LaDuane Clifton

**RBCCM Individuals:**

Andrew Jones

**Compensation**

RBCCM shall be paid compensation up to 3.0% of the gross proceeds from the sales of Common Stock pursuant to the terms of this Agreement.

**OFFICER CERTIFICATE**

The undersigned, the duly qualified and elected \_\_\_\_\_, of KemPharm, Inc. (the "**Company**"), a Delaware corporation, does hereby certify in such capacity and on behalf of the Company, pursuant to **Section 7(m)** of the Sales Agreement dated September 4, 2018 (the "**Sales Agreement**") between the Company and RBC Capital Markets, LLC, that to the best of the knowledge of the undersigned.

(i) The representations and warranties of the Company in **Section 6** of the Sales Agreement (A) to the extent such representations and warranties are subject to qualifications and exceptions contained therein relating to materiality or Material Adverse Effect, are true and correct on and as of the date hereof with the same force and effect as if expressly made on and as of the date hereof, except for those representations and warranties that speak solely as of a specific date and which were true and correct as of such date, and (B) to the extent such representations and warranties are not subject to any qualifications or exceptions, are true and correct in all material respects as of the date hereof as if made on and as of the date hereof with the same force and effect as if expressly made on and as of the date hereof except for those representations and warranties that speak solely as of a specific date and which were so true and correct as of such date; and

(ii) The Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied pursuant to the Sales Agreement at or prior to the date hereof.

By: \_\_\_\_\_  
Name:  
Title:

Date: \_\_\_\_\_