
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 8-K

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

Date of report (Date of earliest event reported): **May 9, 2019**

RA PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

001-37926
(Commission
File Number)

26-2908274
(I.R.S. Employer
Identification No.)

87 Cambridge Park Drive
Cambridge, MA
(Address of principal executive offices)

02140
(Zip Code)

(617) 401-4060
(Registrant's telephone number, include area code)

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

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- 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.

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of each class</u>	<u>Trading Symbol</u>	<u>Name of each exchange on which registered</u>
Common Stock, par value \$0.001 per share	RARX	The Nasdaq Global Market

Item 1.01. Entry into a Material Definitive Agreement.

On May 9, 2019, Ra Pharmaceuticals, Inc. (the “Company” or “we”) entered into an Open Market Sale AgreementSM (the “Sales Agreement”) with Jefferies LLC (“Jefferies”) pursuant to which the Company may sell from time to time, at its option, up to an aggregate of \$100 million of shares of its common stock (the “Shares”) through Jefferies, as sales agent. Sales of the Shares, if any, will be made under the Company’s previously filed and currently effective Registration Statement on Form S-3 (Reg. No. 333-231320) by methods deemed to be an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended. Jefferies will use reasonable efforts to sell the Shares from time to time, based upon the Company’s instructions (including any price, time or size limits or other customary parameters or conditions the Company may impose). The Company cannot provide any assurances that it will issue any shares of its common stock pursuant to the Sales Agreement. The Company will pay Jefferies a commission of up to 3.0% of the gross proceeds from the sale of the Shares, if any. The Company has also agreed to provide Jefferies with customary indemnification rights. The offering of the Shares will terminate upon the earliest of (a) the sale of the maximum number or amount of the Shares permitted to be sold under the Sales Agreement and (b) the termination of the Sales Agreement by the Company or Jefferies.

The foregoing description of the Sales Agreement is not complete and is qualified in its entirety by reference to the full text of such 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.

Latham & Watkins LLP, counsel to the Company, has issued an opinion to the Company, dated May 9, 2019, regarding the validity of the shares of common stock to be issued and sold pursuant to the Sales Agreement. A copy of the opinion is filed 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 any 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 9.01 Financial Statements and Exhibits.

(d) Exhibits:

<u>Exhibit No.</u>	<u>Description</u>
5.1	<u>Opinion of Latham & Watkins LLP.</u>
10.1	<u>Open Market Sale AgreementSM, dated as of May 9, 2019, by and between Ra Pharmaceuticals, Inc. and Jefferies LLC.</u>
23.1	<u>Consent of Latham & Watkins LLP (included in Exhibit 5.1).</u>

SIGNATURES

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

RA PHARMACEUTICALS, INC.

Date: May 9, 2019

By: /s/ David C. Lubner
David C. Lubner
Executive Vice President and Chief Financial Officer

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 Boston, Massachusetts 02116
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LATHAM & WATKINS LLP

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London	Singapore
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Madrid	Washington, D.C.
Milan	

May 9, 2019

Ra Pharmaceuticals, Inc.
 87 Cambridge Park Drive
 Cambridge, MA 02140

Re: Registration Statement on Form S-3 (Registration No. 333-231320); Shares of Common Stock, \$0.001 par value per share, having an aggregate offering price of up to \$100,000,000

Ladies and Gentlemen:

We have acted as special counsel to Ra Pharmaceuticals, Inc., a Delaware corporation (the “*Company*”), in connection with the proposed issuance of up to \$100,000,000 of shares of common stock, \$0.001 par value per share (the “*Shares*”). The Shares are included in a registration statement on Form S-3 under the Securities Act of 1933, as amended (the “*Act*”), filed with the Securities and Exchange Commission (the “*Commission*”) on May 9, 2019 (Registration No. 333-231320) (the “*Registration Statement*”), a base prospectus dated May 9, 2019 (the “*Base Prospectus*”) and a related prospectus supplement dated May 9, 2019 filed with the Commission pursuant to Rule 424(b) under the Act (together with Base Prospectus, the “*Prospectus*”). The Shares may be sold pursuant to a sales agreement dated May 9, 2019, by and between the Company and Jefferies LLC (the “*Sales Agreement*”). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or related Prospectus, other than as expressly stated herein with respect to the issue of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware, and we express no opinion with respect to any other laws.

LATHAM & WATKINS LLP

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers, and have been issued by the Company against payment therefor (not less than par value) in the circumstances contemplated by the Sales Agreement, the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that (i) the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the General Corporation Law of the State of Delaware and (ii) upon the issue of any of the Shares, the total number of shares of Common Stock issued and outstanding will not exceed the total number of shares of Common Stock that the Company is then authorized to issue under its Third Amended and Restated Certificate of Incorporation and by the board of directors of the Company in connection with the offering contemplated by the Registration Statement.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Company's Form 8-K dated May 9, 2019 and to the reference to our firm in the Prospectus under the heading "Legal Matters." In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ LATHAM & WATKINS LLP

OPEN MARKET SALE AGREEMENTSM

May 9, 2019

JEFFERIES LLC
520 Madison Avenue
New York, New York 10022

Ladies and Gentlemen:

Ra Pharmaceuticals, Inc., a Delaware corporation (the “**Company**”), proposes, subject to the terms and conditions stated herein, to issue and sell from time to time through Jefferies LLC, as sales agent and/or principal (the “**Agent**”), shares of the Company’s common stock, par value \$0.001 per share (the “**Common Shares**”), having an aggregate offering price of up to the Maximum Program Amount (as defined herein), on the terms set forth in this agreement (this “**Agreement**”).

Section 1. DEFINITIONS

(a) Certain Definitions. For purposes of this Agreement, capitalized terms used herein and not otherwise defined shall have the following respective meanings:

“**Affiliate**” of a Person means another Person that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such first-mentioned Person. The term “control” (including the terms “controlling,” “controlled by” and “under common control with”) means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

“**Agency Period**” means the period commencing on the date of this Agreement and expiring on the earliest to occur of (x) the date on which the Agent shall have placed the Maximum Program Amount pursuant to this Agreement and (y) the date this Agreement is terminated pursuant to Section 7.

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

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

“**Floor Price**” means the minimum price set by the Company in the Issuance Notice below which the Agent shall not sell Shares during the applicable period set forth in the Issuance Notice, which may be adjusted by the Company at any time during the period set forth in the Issuance Notice by delivering written notice of such change to the Agent and which in no event shall be less

SM “Open Market Sale Agreement” is a service mark of Jefferies LLC

than \$1.00 without the prior written consent of the Agent, which may be withheld in the Agent's sole discretion.

"Issuance Amount" means the aggregate Sales Price of the Shares to be sold by the Agent pursuant to any Issuance Notice.

"Issuance Notice" means a written notice delivered to the Agent by the Company in accordance with this Agreement in the form attached hereto as Exhibit A that is executed by its Chief Executive Officer, President or Chief Financial Officer.

"Issuance Notice Date" means any Trading Day during the Agency Period that an Issuance Notice is delivered pursuant to Section 3(b)(i).

"Issuance Price" means the Sales Price less the Selling Commission.

"Maximum Program Amount" means Common Shares with an aggregate Sales Price of the lesser of (a) the number or dollar amount of Common Shares registered under the effective Registration Statement (defined below) pursuant to which the offering is being made, (b) the number of authorized but unissued Common Shares (less Common Shares issuable upon exercise, conversion or exchange of any outstanding securities of the Company or otherwise reserved from the Company's authorized capital stock), (c) the number or dollar amount of Common Shares permitted to be sold under Form S-3 (including General Instruction I.B.6 thereof, if applicable), or (d) the number or dollar amount of Common Shares for which the Company has filed a Prospectus (defined below).

"Person" means an individual or a corporation, partnership, limited liability company, trust, incorporated or unincorporated association, joint venture, joint stock company, governmental authority or other entity of any kind.

"Principal Market" means the Nasdaq Global Market or such other national securities exchange on which the Common Shares, including any Shares, are then listed.

"Sales Price" means the actual sale execution price of each Share placed by the Agent pursuant to this Agreement.

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations of the Commission thereunder.

"Selling Commission" means up to 3.0% of the gross proceeds for any Shares sold pursuant to this Agreement.

"Settlement Date" means the second business day following each Trading Day during the period set forth in the Issuance Notice on which Shares are sold pursuant to this Agreement, when the Company shall deliver to the Agent the amount of Shares sold on such Trading Day and the Agent shall deliver to the Company the Issuance Price received on such sales.

"Shares" means the Company's Common Shares issued or issuable pursuant to this Agreement.

“**Trading Day**” means any day on which the Principal Market is open for trading.

Section 2. REPRESENTATIONS AND WARRANTIES OF THE COMPANY

The Company represents and warrants to, and agrees with, the Agent that as of (1) the date of this Agreement, (2) each Issuance Notice Date, (3) each Settlement Date, (4) each Triggering Event Date with respect to which the Company is obligated to deliver a certificate pursuant to Section 4(o) and (5) each Time of Sale (each of the times referenced above is referred to herein as a “**Representation Date**”), except as may be disclosed in the Time of Sale Information (including the Prospectus and any documents incorporated by reference therein and any supplements thereto) on or before a Representation Date:

(a) **Registration Statement.** The Company has prepared and filed or will prepare and file with the Commission an “automatic shelf registration statement” as defined under Rule 405 under the Securities Act on Form S-3, that contains a base prospectus (the “**Base Prospectus**”), and which will become automatically effective under Rule 462(e) of the Securities Act upon filing with the Commission. Such registration statement registers the issuance and sale by the Company of the Shares under the Securities Act. The Company may file one or more additional registration statements from time to time that will contain a base prospectus and related prospectus or prospectus supplement, if applicable, with respect to the Shares. Except where the context otherwise requires, such registration statement(s), including any information deemed to be a part thereof pursuant to Rule 430B under the Securities Act, including all financial statements, exhibits and schedules thereto and all documents incorporated or deemed to be incorporated therein by reference pursuant to Item 12 of Form S-3 under the Securities Act as from time to time amended or supplemented, is herein referred to as the “**Registration Statement**,” and the prospectus constituting a part of such registration statement(s), together with any prospectus supplement filed with the Commission pursuant to Rule 424(b) under the Securities Act relating to a particular issuance of the Shares, including all documents incorporated or deemed to be incorporated therein by reference pursuant to Item 12 of Form S-3 under the Securities Act, in each case, as from time to time amended or supplemented, is referred to herein as the “**Prospectus**,” except that if any revised prospectus is provided to the Agent by the Company for use in connection with the offering of the Shares that is not required to be filed by the Company pursuant to Rule 424(b) under the Securities Act, the term “**Prospectus**” shall refer to such revised prospectus from and after the time it is first provided to the Agent for such use. The Registration Statement at the time it originally became effective is herein called the “**Original Registration Statement**.” As used in this Agreement, the terms “amendment” or “supplement” when applied to the Registration Statement or the Prospectus shall be deemed to include the filing by the Company with the Commission of any document under the Exchange Act after the date hereof that is or is deemed to be incorporated therein by reference.

All references in this Agreement to financial statements and schedules and other information which is “contained,” “included” or “stated” in the Registration Statement or the Prospectus (and all other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information which is or is deemed to be incorporated by reference in or otherwise deemed under the Securities Act to be a part of or included in the Registration Statement or the Prospectus, as the case may be, as of any specified date; and all references in this Agreement to amendments or supplements to the Registration Statement or the Prospectus shall be deemed to

mean and include, without limitation, the filing of any document under the Exchange Act which is or is deemed to be incorporated by reference in or otherwise deemed under the Securities Act to be a part of or included in the Registration Statement or the Prospectus, as the case may be, as of any specified date. The Company's obligations under this Agreement to furnish, provide, deliver or make available (and all other references of like import) copies of any report or statement shall be deemed satisfied if the same is filed with the Commission through EDGAR.

At the time the Original Registration Statement became effective, the Company met the then-applicable requirements for use of Form S-3 under the Securities Act. During the Agency Period, each time the Company files an annual report on Form 10-K the Company will meet the then-applicable requirements for use of Form S-3 under the Securities Act.

(b) Compliance with Registration Requirements. The Original Registration Statement has become effective under the Securities Act. The Company has complied to the Commission's satisfaction with all requests of the Commission for additional or supplemental information with respect to the Original Registration Statement. 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 Prospectus when filed complied in all material respects with the Securities Act and, if filed by electronic transmission pursuant to the Commission's Electronic Data Gathering, Analysis and Retrieval system ("EDGAR") (except as may be permitted by Regulation S-T under the Securities Act), was identical to the copy thereof delivered to the Agent for use in connection with the issuance and sale of the Shares. Each of the Registration Statement, any Rule 462(b) Registration Statement and any post-effective amendment thereto, at the time it became effective and at each Representation Date, complied and will comply, as the case may be, in all material respects with the Securities Act and did not and will not, as the case may be, 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 (except that the foregoing shall not apply to those parts of the Registration Statement that constitute the Statement of Eligibility (Form T-1) under the Trust Indenture Act of 1939). As of the date of this Agreement, the Prospectus and any Free Writing Prospectus considered together (collectively, the "**Time of Sale Information**") did not contain any 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 under which they were made, not misleading. The Prospectus, as amended or supplemented, as of its date and at each Representation Date, did not and will not, as the case may be, 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 three immediately preceding sentences do not apply to statements in or omissions from the Registration Statement, any Rule 462(b) Registration Statement or any post-effective amendment thereto, or the Prospectus or any Free Writing Prospectus, or any amendments or supplements thereto, made in reliance upon and in conformity with information relating to the Agent furnished to the Company in writing by the Agent expressly for use therein, it being understood and agreed that the only such information furnished by the Agent to the Company consists of the information described in Section 6 below. 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. The Registration Statement and the offer and sale of the Shares as contemplated hereby meet the requirements of Rule 415 under the Securities Act and comply in all material respects with said rule.

(c) Ineligible Issuer Status. The Company is not an “ineligible issuer” in connection with the offering of the Shares pursuant to Rules 164, 405 and 433 under the Securities Act. Any Free Writing Prospectus that the Company is required to file pursuant to Rule 433(d) under the Securities Act has been, or will be, filed with the Commission in accordance with the requirements of the Securities Act. Each Free Writing Prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act or that was prepared by or on behalf of or used or referred to by the Company complies or will comply, as the case may be, in all material respects with the requirements of Rule 433 under the Securities Act including timely filing with the Commission or retention where required and legending, and each such Free Writing Prospectus, as of its issue date and at all subsequent times through the completion of the issuance and sale of the Shares did not, does not and will not include any information that conflicted, conflicts with or will conflict with the information contained in the Registration Statement or the Prospectus, as then amended and supplemented, including any document incorporated by reference therein. Except for the Free Writing Prospectuses, if any, and electronic road shows relating to the offering of the Shares, if any, in each case, furnished to the Agent before first use, the Company has not prepared, used or referred to, and will not, without the Agent’s prior consent, prepare, use or refer to, any Free Writing Prospectus.

(d) [Reserved].

(e) Exchange Act Compliance. 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, and any Free Writing Prospectus or amendment or supplement thereto complied or will comply at the time of such filing in all material respects with the requirements of the Exchange Act, and, when read together with the other information in the Prospectus, at the time the Registration Statement and any amendments thereto become effective and as of each Representation Date, as the case may be, 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.

(f) Good Standing of the Company. The Company has been duly incorporated and is existing and in good standing under the laws of the State of Delaware, with power and authority (corporate and other) to own its properties and conduct its business as described in the Prospectus; and the Company is duly qualified to do business as a foreign corporation in good standing in all other jurisdictions in which its ownership or lease of property or the conduct of its business requires such qualification except where the failure to be so qualified or in such good standing would not, individually or in the aggregate, result in a material adverse effect on the condition (financial or otherwise), results of operations, business, properties or prospects of the Company and its subsidiaries taken as a whole (a “**Material Adverse Effect**”).

(g) Subsidiaries. Each subsidiary of the Company has been duly incorporated and is existing and in good standing under the laws of the jurisdiction of its incorporation, with power

and authority (corporate and other) to own its properties and conduct its business as described in the Prospectus; and each subsidiary of the Company is duly qualified to do business as a foreign corporation in good standing in all other jurisdictions in which its ownership or lease of property or the conduct of its business requires such qualification, except where the failure to be so qualified or in such good standing would not reasonably be expected to have a Material Adverse Effect; all of the issued and outstanding capital stock of each subsidiary of the Company has been duly authorized and validly issued and is fully paid and nonassessable; and the capital stock of each subsidiary owned by the Company, directly or through subsidiaries, is owned free from liens, encumbrances and defects.

(h) Authorization of the Shares. The Shares and all other outstanding shares of capital stock of the Company have been duly authorized; the authorized equity capitalization of the Company is as set forth in the Registration Statement and the Prospectus; all outstanding shares of capital stock of the Company are, and, when the Shares have been issued and delivered in accordance with this Agreement, such Shares will have been, validly issued, fully paid and nonassessable, will conform in all material respects to the information in the Registration Statement and to the description of such Shares contained in the Prospectus; the stockholders of the Company have no preemptive rights with respect to the Shares; and none of the outstanding shares of capital stock of the Company have been issued in violation of any preemptive or similar rights of any security holder.

(i) No Finder's Fee. Except as disclosed in Prospectus, there are no contracts, agreements or understandings between the Company and any person that would give rise to a valid claim against the Company or the Agent for a brokerage commission, finder's fee or other like payment in connection with this offering.

(j) Registration Rights. Except as disclosed in the Prospectus, there are no contracts, agreements or understandings between the Company and any person granting such person the right to require the Company to file a registration statement under the Securities Act with respect to any securities of the Company owned or to be owned by such person or to require the Company to include such securities in the securities registered pursuant to a Registration Statement or in any securities being registered pursuant to any other registration statement filed by the Company under the Securities Act (collectively, "**registration rights**"), and any person to whom the Company has granted registration rights has agreed not to exercise such rights

(k) Listing. The Common Shares are registered pursuant to Section 12(b) of the Exchange Act and are listed on the Principal Market, and the Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Shares under the Exchange Act or delisting the Common Shares from the Principal Market, nor has the Company received any notification that the Commission or the Principal Market is contemplating terminating such registration or listing.

(l) Absence of Further Requirements. No consent, approval, authorization, or order of, or filing or registration with, any person (including any governmental agency or body or any court) is required for the consummation of the transactions contemplated by this Agreement in connection with the offering, issuance and sale of the Shares by the Company, except such as have been obtained, or made and such as may be required under state securities laws.

(m) Title to Property. Except as disclosed in the Prospectus (i) the Company and its subsidiaries have good and marketable title to all real properties and all other tangible personal properties and assets owned by them, in each case free from liens, charges, encumbrances and defects that would materially affect the value thereof or materially interfere with the use made or to be made thereof by them and (ii) the Company and its subsidiaries hold any leased real or personal property under valid and enforceable leases with no terms or provisions that would materially interfere with the use made or to be made thereof by them.

(n) Absence of Defaults and Conflicts Resulting from Transaction. The execution, delivery and performance of this Agreement, and the issuance and sale of the Shares will not result in a breach or violation of any of the terms and provisions of, or constitute a default or a Debt Repayment Triggering Event (as defined below) under, or result in the imposition of any lien, charge or encumbrance upon any property or assets of the Company or any of its subsidiaries pursuant to, (i) the charter or by-laws of the Company or any of its subsidiaries, (ii) any statute, rule, regulation or order of any governmental agency or body or any court, domestic or foreign, having jurisdiction over the Company or any of its subsidiaries or any of their properties, or (iii) any agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the properties of the Company or any of its subsidiaries is subject, except with respect to clauses (ii) and (iii) above where such breach, violation or default would not have a Material Adverse Effect and as would not have a material adverse effect on the consummation of the transactions contemplated by this Agreement; 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 or any of its subsidiaries.

(o) Absence of Existing Defaults and Conflicts. Neither the Company nor any of its subsidiaries is in violation of its respective charter or by-laws or in default (or with the giving of notice or lapse of time would be in default) under any existing obligation, agreement, covenant or condition contained in any indenture, loan agreement, mortgage, lease or other agreement or instrument to which any of them is a party or by which any of them is bound or to which any of the properties of any of them is subject, except such defaults that would not reasonably be expected to have a Material Adverse Effect.

(p) Authorization of 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

(q) Possession of Licenses and Permits. The Company and its subsidiaries possess, and are in compliance in all material respects with the terms of, all applicable certificates, franchises, licenses, approvals, clearances, exemptions, registrations, consents, permits and other authorizations (collectively, “**Licenses**”) necessary for the conduct of the business, including, without limitation, all such Licenses required by the U.S. Food and Drug Administration (“**FDA**”),

and all such Licenses are valid and in full force and effect. The Company and each of its subsidiaries has fulfilled and performed all of their material obligations with respect to the Licenses and, no event has occurred which allows, or after notice or lapse of time would allow, revocation or termination thereof or results in any other material impairment of the rights of the holder of any License. Neither the Company nor any of its subsidiaries has received any notice of proceedings related to the revocation of, modification of, or non-compliance with, any Licenses that, if determined adversely to the Company or any of its subsidiaries, would, individually or in the aggregate, have or reasonably be expected to have a Material Adverse Effect.

(r) Studies. The preclinical studies and clinical trials conducted by, on behalf of or sponsored by the Company or its subsidiaries, or in which the Company or its subsidiaries participated, were and, if still pending are being, conducted in all material respects in accordance with the experimental protocols established for each study and trial and with all applicable local, state and federal laws, rules and regulations, including, without limitation, the Federal Food, Drug, and Cosmetic Act and its applicable implementing regulations; the descriptions of the results of such studies and trials contained in the Registration Statement and the Prospectus are accurate and complete in all material respects and fairly present the data derived from such studies and trials; except to the extent disclosed in the Registration Statement and the Prospectus, the Company is not aware of any studies or trials, the results of which are inconsistent with or otherwise call into question the study and trial results described or referred to in the Registration Statement and the Prospectus; and neither the FDA nor any applicable foreign regulatory agency has commenced, or, to the knowledge of the Company, threatened to initiate, any action to place a hold order on, or otherwise terminate, delay or suspend, any proposed or ongoing preclinical studies or clinical trials conducted or proposed to be conducted by or on behalf of the Company.

(s) Health Care Laws and Compliance. The Company and each of its subsidiaries has operated and currently is in compliance in all material respects with all applicable Health Care Laws (defined herein), and has not engaged in activities which are, as applicable, cause for false claims liability, civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, or any other state or federal health care program. For purposes of this Agreement, "Health Care Laws" shall mean the federal Anti-kickback Statute (42 U.S.C. § 1320a-7b(b)), the Physician Payments Sunshine Act (42 U.S.C. § 1320a-7h), the civil False Claims Act (31 U.S.C. §§ 3729 et seq.), the criminal False Claims Act (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, and the health care fraud criminal provisions, including 18 U.S.C. § 1347, under the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. § 1320d et seq.) ("HIPAA"), the exclusion laws (42 U.S.C. § 1320a-7), the civil monetary penalties law (42 U.S.C. § 1320a-7a), HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. §§ 17921 et seq.), the Federal Food, Drug, and Cosmetic Act (21 U.S.C. §§ 301 et seq.), Medicare (Title XVIII of the Social Security Act), Medicaid (Title XIX of the Social Security Act), the regulations promulgated pursuant to such laws, and any other similar local, state or federal law and regulations. The Company has not received any FDA Form 483, notice of adverse finding, warning letter, untitled letter or other correspondence, communication or notice from the U.S. Food and Drug Administration or any other governmental or regulatory authority alleging or asserting noncompliance with any Health Care Laws applicable to the Company. The Company is not a party to nor has any ongoing reporting obligations pursuant to any corporate integrity agreements, deferred prosecution agreements, monitoring agreements, consent decrees, settlement orders,

plans of correction or similar agreements with or imposed by any governmental or regulatory authority. Neither the Company nor any of its respective employees, officers or directors has been excluded, suspended or debarred from participation in any U.S. federal health care program or human clinical research or, to the knowledge of the Company after due inquiry, is subject to a governmental inquiry, investigation, proceeding, or other similar action that would reasonably be expected to result in debarment, suspension, or exclusion

(t) Absence of Labor Dispute. No labor dispute with the employees of the Company or any of its subsidiaries exists or, to the knowledge of the Company, is imminent that would, individually or in the aggregate, have or reasonably be expected to have a Material Adverse Effect.

(u) Possession of Intellectual Property. Except as disclosed in the Registration Statement and the Prospectus, the Company and its subsidiaries own, possess or, to the knowledge of the Company, can acquire on reasonable terms sufficient trademarks, trade names, patent rights, copyrights, domain names, licenses, approvals, trade secrets, inventions, technology, know-how and other intellectual property and similar rights, including registrations and applications for registration thereof (collectively, “**Intellectual Property Rights**”) described in the Registration Statement and the Prospectus as owned or possessed by the Company and its subsidiaries or that are, to the Company’s knowledge, necessary or material to the conduct of the business now conducted or proposed in the Registration Statement and the Prospectus to be conducted by them. To the Company’s knowledge, none of the patents of the Company or its subsidiaries are invalid or unenforceable, in whole or in part, and the Company is unaware of any facts that would form a reasonable basis for such a determination. None of the Intellectual Property Rights of the Company or its subsidiaries, other than patents and patent applications, are invalid or unenforceable, in whole or in part, and the Company is unaware of any facts that would form a reasonable basis for such a determination. To the knowledge of the Company, there are no unreleased liens or security interests which have been filed against any of the patents owned by or licensed to the Company, except those that would not, individually or in the aggregate, have or reasonably be expected to have a Material Adverse Effect. Except as disclosed in the Registration Statement and the Prospectus, (i) the Company is not obligated to pay a material royalty, grant a license or provide other material consideration to any third party in connection with its Intellectual Property Rights; (ii) to the Company’s knowledge, there are no rights of third parties to any of the Intellectual Property Rights owned by the Company or its subsidiaries, in any field of use, other than the respective licensor to the Company of such Intellectual Property Rights; (iii) to the Company’s knowledge, there is no material infringement, misappropriation breach, default or other violation, or the occurrence of any event that with notice or the passage of time would constitute any of the foregoing, by the Company, its subsidiaries or third parties of any of the Intellectual Property Rights of the Company or its subsidiaries; (iv) there is no pending or, to the Company’s knowledge, threatened action, suit, proceeding or claim by others (a) challenging the Company’s or any of its subsidiary’s rights in or to, or the violation of any of the terms of, any of their Intellectual Property Rights; (b) challenging the validity, enforceability or scope of any such Intellectual Property Rights; or (c) that alleges the Company or any of its subsidiaries infringes, misappropriates or otherwise violates or conflicts with any Intellectual Property Rights or other proprietary rights of others, and, in each case, the Company is unaware of any facts which would form a reasonable basis for any such claim; (v) none of the Intellectual Property Rights used by the Company or its subsidiaries in their businesses has been obtained or is being used by the Company or its subsidiaries in violation of any contractual obligation binding on the Company,

any of its subsidiaries in violation of the rights of any persons; and (vi) to the Company's knowledge, no employee of the Company or any of its subsidiaries is in or has ever been in violation of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company or any of its subsidiaries or actions undertaken by the employee while employed with the Company or any of its subsidiaries. To the knowledge of the Company, except as otherwise disclosed in the Registration Statement and the Prospectus, (1) neither the commercial development nor the sale of any of the proposed products or processes of the Company, as described in the Registration Statement and the Prospectus, infringes, misappropriates or otherwise violates, or would infringe, misappropriate or otherwise violate, upon the commercialization of such proposed products or processes, any existing Intellectual Property Rights of any third party; and (2) each current and former employee and consultant of the Company (a) has executed an inventions assignment and confidentiality agreement with the Company, on or about the respective date of hire, and signed copies of such agreements have been made available to the Agent and its counsel; and (b) has signed or agreed to assign to the Company any and all Intellectual Property Rights he or she may possess or may have possessed that are related to the Company's business, as currently conducted and as proposed to be conducted, as described in the Registration Statement and the Prospectus, except where such failure to execute such agreement or to agree to assign such Intellectual Property Rights would not reasonably be expected to have a Material Adverse Effect. All patents and patent applications described in the Registration Statement and the Prospectus as being owned by or licensed to the Company or under which the Company has rights have, to the knowledge of the Company, been duly and properly filed and maintained; to the knowledge of the Company, the parties prosecuting such applications have complied with their duty of candor and disclosure to the U.S. Patent and Trademark Office (the "USPTO") in connection with such applications; and the Company is not aware of any facts required to be disclosed to the USPTO that were not disclosed to the USPTO and which would preclude the grant of a patent in connection with any such application or could form the basis of a finding of invalidity with respect to any patents that have issued with respect to such applications.

(v) Environmental Laws. Except as disclosed in the Registration Statement and the Prospectus, neither the Company nor any of its subsidiaries is in violation of any statute, any rule, regulation, decision or order of any governmental agency or body or any court, domestic or foreign, relating to the use, disposal or release of hazardous or toxic substances or relating to the protection or restoration of the environment or human exposure to hazardous or toxic substances (collectively, "**environmental laws**"), owns or operates any real property contaminated with any substance that is subject to any environmental laws, is liable for any off-site disposal or contamination pursuant to any environmental laws, or is subject to any claim relating to any environmental laws, which violation, contamination, liability or claim would, individually or in the aggregate, have or reasonably be expected to have a Material Adverse Effect; and the Company is not aware of any pending investigation which might lead to such a claim.

(w) Accurate Disclosure. The statements in or incorporated by reference in the Registration Statement and the Prospectus under the headings "Risk Factors — Risks Related to Our Intellectual Property"; "Business — Our Merck Collaboration and License Agreement"; "Business — Intellectual Property"; "Legal Proceedings"; "Certain Relationships and Related

Party Transactions, and Director Independence”; “Description of Capital Stock”; and “Material U.S. Federal Income Tax Consequences to Non-U.S. Holders of our Common Stock,” insofar as such statements summarize legal matters, agreements, documents, licenses or proceedings discussed therein, are accurate and fair summaries of such legal matters, agreements, documents, licenses or proceedings and present the information required to be shown.

(x) Absence of Manipulation. The Company has not taken, directly or indirectly, any action that is designed to or that has constituted or that would reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares.

(y) Statistical and Market-Related Data. Any third-party statistical and market-related data included in the Registration Statements or the Prospectus are based on or derived from sources that the Company believes to be reliable and accurate.

(z) Internal Controls and Compliance with the Sarbanes-Oxley Act. Except as set forth in the Registration Statement and the Prospectus, the Company, its subsidiaries and the Company’s Board of Directors (the “**Board**”) are in compliance with Sarbanes-Oxley (to the extent applicable) and all applicable Exchange Rules. The Company maintains a system of internal controls, including, but not limited to, disclosure controls and procedures, internal controls over accounting matters and financial reporting and legal and regulatory compliance controls (collectively, “**Internal Controls**”) that comply with the Securities Laws (to the extent applicable) and are sufficient 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 U.S. General Accepted Accounting Principles (“**GAAP**”) and to maintain accountability for assets, (iii) access to assets is permitted only in accordance with management’s general or specific authorization and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Internal Controls are, or upon consummation of the offering of the Shares will be, overseen by the Audit Committee (the “**Audit Committee**”) of the Board in accordance with Exchange Rules. The Company has not publicly disclosed or reported to the Audit Committee or the Board, and within the next 135 days the Company has no current reason to expect to publicly disclose or report to the Audit Committee or the Board, a “significant deficiency” or “material weakness” (each, as defined in Rule 12b-2 of the Exchange Act), a change in Internal Controls or fraud involving management or other employees who have a significant role in Internal Controls (each, an “**Internal Control Event**”), any violation of, or failure to comply with, the Securities Laws, or any matter which, if determined adversely, would, individually or in the aggregate, have or reasonably be expected to have a Material Adverse Effect.

(aa) Absence of Accounting Issues. A member of the Audit Committee has confirmed to the Chief Executive Officer or Chief Financial Officer of the Company that, except as set forth in the Registration Statement and the Prospectus, the Audit Committee is not reviewing or investigating, and the Company’s independent auditors have not recommended 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.

(bb) Litigation. Except as disclosed in the Registration Statement and the Prospectus, there are no pending actions, suits or proceedings (including any inquiries or investigations by any court or governmental agency or body, domestic or foreign) against or affecting the Company, any of its subsidiaries or any of their respective properties that, if determined adversely to the Company or any of its subsidiaries, would, individually or in the aggregate, have or reasonably be expected to have a Material Adverse Effect, or would materially and adversely affect the ability of the Company to perform its obligations under this Agreement, or which are otherwise material in the context of the sale of Shares; and no such actions, suits or proceedings (including any inquiries or investigations by any court or governmental agency or body, domestic or foreign) are threatened or, to the Company's knowledge, contemplated.

(cc) Financial Statements. The financial statements included in or incorporated by reference in the Registration Statement and the Prospectus present fairly in all material respects the financial position of the Company and its consolidated subsidiaries as of the dates shown and their results of operations and cash flows for the periods shown, and such financial statements have been prepared in conformity with GAAP applied on a consistent basis; and the schedules to the financial statements included in or incorporated by reference in the Registration Statement or the Prospectus present fairly in all material respects the information required to be stated therein; and the assumptions used in preparing the pro forma financial data, if any, included or incorporated by reference in the Registration Statement and the Prospectus provide a reasonable basis for presenting the significant effects directly attributable to the transactions or events described therein, the related pro forma adjustments give appropriate effect to those assumptions, and the pro forma columns therein reflect the proper application of those adjustments to the corresponding historical financial statement amounts. No other financial statements or schedules are required by Form S-3 or otherwise to be included in the Registration Statement or the Prospectus. The interactive data in eXtensible Business Reporting Language included in the Registration Statement and the Prospectus fairly presents the required information and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

(dd) No Material Adverse Change in Business. Except as disclosed in the Registration Statement and the Prospectus, since the end of the period covered by the latest audited financial statements included in the Registration Statement and the Prospectus (i) there has been no change, nor any development or event involving a prospective change, in the condition (financial or otherwise), results of operations, business, properties or prospects of the Company and its subsidiaries, taken as a whole that is material and adverse (any such change is called a "**Material Adverse Change**"), (ii) except as disclosed in or contemplated by the Registration Statement and the Prospectus, there has been no dividend or distribution of any kind declared, paid or made by the Company on any class of its capital stock, (iii) except as disclosed in or contemplated by the Registration Statement and the Prospectus, there has been no material adverse change in the capital stock, short-term indebtedness, long-term indebtedness, net current assets or net assets of the Company and its subsidiaries, (iv) except as disclosed in the Registration Statement and the Prospectus, there has been no transaction entered into by the Company or any of its subsidiaries that is material to the Company and its subsidiaries taken as a whole and there is no transaction that is probable of being entered into by the Company or any of its subsidiaries that is material to

the Company and its subsidiaries taken as a whole, other than transactions in the ordinary course of business, (v) except as disclosed in the Registration Statement and the Prospectus, there has been no obligation, direct or contingent, incurred by the Company or any of its subsidiaries that is material to the Company and its subsidiaries taken as a whole, except obligations incurred in the ordinary course of business and (vi) except as disclosed in the Registration Statement and the Prospectus, neither the Company nor any of its subsidiaries has sustained any material loss or material interference with any of their respective businesses from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor disturbance or dispute or any action, order or decree of any court or arbitrator or governmental or regulatory authority.

(ee) Investment Company Act. The Company is not and, after receipt of payment for the Shares and the application of the proceeds thereof as described in the Registration Statement and the Prospectus, will not be an “investment company” as defined in the Investment Company Act of 1940, as amended (the “**Investment Company Act**”).

(ff) Ratings. No “nationally recognized statistical rating organization” as such term is defined in Section 3(a)(62) of the Exchange Act (i) has imposed (or has informed the Company that it is considering imposing) any condition (financial or otherwise) on the Company’s retaining any rating assigned to the Company or any securities of the Company or (ii) has indicated to the Company that it is considering any of the actions described in Section 5(a)(iii) hereof.

(gg) No Unlawful Payments. Neither the Company nor any of its subsidiaries, nor any director, officer or employee of the Company or any of its subsidiaries nor, to the knowledge of the Company, any agent, affiliate or other person associated with or acting on behalf of the Company or any of its subsidiaries has (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made or taken an act in furtherance of an offer, promise or authorization of any direct or indirect unlawful payment or benefit to any foreign or domestic government official, “foreign official” (as defined in the U.S. Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (collectively, the “**FCPA**”) or employee, including of any government-owned or controlled entity or of a public international organization, or any person acting in an official capacity for or on behalf of any of the foregoing, or any political party or party official or candidate for political office; (iii) violated or is in violation of any provision of the FCPA 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 2010 of the United Kingdom or any other applicable anti-bribery or anti-corruption law; or (iv) made, offered, agreed, requested or taken an act in furtherance of any unlawful bribe or other unlawful benefit, including, without limitation, any rebate, influence payment, payoff, kickback or other unlawful or improper payment or benefit; and the Company and its subsidiaries, any affiliate under the control of the Company or any of its subsidiaries and, to the Company’s knowledge, any affiliate not under control of the Company or any of its subsidiaries have conducted their respective businesses in compliance with the FCPA and have instituted, maintain and enforce, and will continue to maintain and enforce, policies and procedures designed to promote and ensure, and which are reasonably expected to continue to ensure, continued compliance with all applicable anti-bribery and anti-corruption laws.

(hh) Anti-Money Laundering. The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with all applicable financial recordkeeping and reporting requirements, including those of the Bank Secrecy Act, as amended by Title III of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act), and the applicable anti-money laundering statutes of all jurisdictions in which the Company or any of its subsidiaries conduct business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the “**Anti-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 or any of its subsidiaries with respect to the Anti-Money Laundering Laws is pending or, to the Company’s knowledge, threatened.

(ii) Conflicts with Sanctions Laws.

(i) Neither the Company nor any of its subsidiaries, directors, officers, or employees, nor, to the knowledge of the Company, any agent, affiliate or other person associated with or acting on behalf of the Company or any of its subsidiaries is an individual or entity that is, or is owned or controlled by an individual or entity that is:

(A) the subject or target of any sanctions administered or enforced by the U.S. government, (including, without limitation, the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State and including, without limitation, the designation as “specially designated national” or “blocked person”), the United Nations Security Council, the European Union, Her Majesty’s Treasury, the Swiss Secretariat of Economic Affairs, the Hong Kong Monetary Authority, the Monetary Authority of Singapore or other relevant sanctions authority (collectively, “**Sanctions**”), nor

(B) located, organized or resident in a country or territory that is the subject or target of Sanctions (including, without limitation, Cuba, Iran, North Korea, Sudan, Syria and Crimea (each, a “**Sanctioned Country**”)).

(ii) The Company will not, directly or indirectly, use the proceeds of the offering of the Shares hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other individual or entity:

(A) to fund or facilitate any activities or business of or with any individual or entity that, at the time of such funding or facilitation, is the subject or target of Sanctions;

(B) to fund or facilitate any activities of or business in any Sanctioned Country; or

(C) in any other manner that will result in a violation of Sanctions by any individual or entity (including any individual or entity participating in the offering, whether as underwriter, advisor, investor or otherwise).

(iii) For the past five (5) years, the Company and its subsidiaries have not knowingly engaged in, are not now knowingly engaged in, and will not engage in, any dealings or transactions with any individual or entity that at the time of the dealing or transaction is or was the subject or target of Sanctions or with or in any Sanctioned Country.

(jj) Tax Matters. The Company and its subsidiaries have filed all federal, state, local and non-U.S. tax returns that are required to have been filed by them or have requested extensions thereof (except in any case in which the failure so to file would not reasonably be expected to have a Material Adverse Effect). Except as set forth in the Registration Statement and the Prospectus, the Company and its subsidiaries have paid all taxes (including any assessments, fines or penalties) required to be paid by them, except for any such taxes, assessments, fines or penalties currently being contested in good faith or as would not reasonably be expected to have a Material Adverse Effect. There are no deficiencies for taxes, including any interest and penalties thereon, with respect to the Company or any of its subsidiaries that have been claimed, proposed or assessed by any tax authority, except as would not reasonably be expected to have a Material Adverse Effect.

(kk) Insurance. (i) The Company and its subsidiaries are insured by insurers with appropriately rated claims paying abilities against such losses and risks and in such amounts as are prudent and customary for similarly sized companies in the businesses in which they are engaged; (ii) all material policies of insurance insuring the Company or any of its subsidiaries or their respective businesses, assets, employees, officers and directors are in full force and effect; (iii) the Company and its subsidiaries are in compliance with the terms of such policies and instruments in all material respects; and (iv) except in respect of certain legal proceedings disclosed in the Registration Statement and the Prospectus, there are no material claims by the Company or any of its subsidiaries under any such policy or instrument as to which any insurance company is denying liability or defending under a reservation of rights clause. Neither the Company nor any of its subsidiaries has (i) been refused any insurance coverage sought or applied or (ii) 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, individually or in the aggregate, have or reasonably be expected to have a Material Adverse Effect, except as set forth in or contemplated in the Registration Statement and the Prospectus.

(ll) No Restrictions on Payments by Subsidiaries. Except as described in the Registration Statement and the Prospectus, no subsidiary of the Company is currently prohibited, directly or indirectly, under any agreement or other instrument to which it is a party or is subject, (i) from paying any dividends to the Company, (ii) from making any other distribution on such subsidiary's capital stock, (iii) from repaying to the Company any loans or advances to such

subsidiary from the Company or (iv) from transferring any of such subsidiary's material properties or assets to the Company or any other subsidiary of the Company.

(mm) ERISA Compliance. Except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect: (i) each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended (“**ERISA**”), for which the Company or an ERISA Affiliate (which means, with respect to the Company, any member of any group of organizations described in Sections 414(b),(c),(m) or (o) of the Internal Revenue Code of 1986, as amended (the “**Code**”) of which the Company is a member) would have any liability (each, a “**Plan**”) has been maintained in compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to ERISA and the Code; (ii) no prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred with respect to any Plan excluding transactions effected pursuant to a statutory or administrative exemption; (iii) for each Plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, the minimum funding standards of Section 412 of the Code or Section 302 of ERISA, as applicable, have been satisfied (without taking into account any waiver thereof or extension of any amortization period) and are reasonably expected to be satisfied in the future (without taking into account any waiver thereof or extension of any amortization period); (iv) no “reportable event” (within the meaning of Section 4043(c) of ERISA) has occurred or is reasonably expected to occur; (v) neither the Company nor any of its ERISA Affiliates has incurred or reasonably expects to incur any material liability under Title IV of ERISA (other than contributions to the Plan or premiums to the Pension Benefit Guaranty Corporation, in the ordinary course and without default) in respect of a Plan (including a “multiemployer plan,” within the meaning of Section 4001(a)(3) of ERISA); and (vi) there is no pending audit or investigation by the Internal Revenue Service, the U.S. Department of Labor, the Pension Benefit Guaranty Corporation or any other governmental agency or any foreign regulatory agency with respect to any Plan.

(nn) Emerging Growth Company Status. From the time of filing its first registration statement with the Commission (or, if earlier, the first date on which the Company engaged directly or through any person authorized to act on its behalf in any Testing-the-Waters Communications) through the date hereof, the Company has been and is an “emerging growth company,” as defined in Section 2(a) of the Securities Act (an “**Emerging Growth Company**”).

(oo) Well-known Seasoned Issuer. (A) At the original effectiveness of the Registration Statement, (B) at the time of the most recent amendment thereto for the purposes of complying with Section 10(a)(3) of the Securities Act (whether such amendment was by post-effective amendment or incorporated report filed pursuant to Section 13 or 15(d) of the Exchange Act or in the form of a prospectus), (C) at the time the Company or any person acting on its behalf (within the meaning, for this clause only, of Rule 163(c) under the Securities Act) made any offer relating to the Shares in reliance on the exemption of Rule 163 under the Securities Act, and (D) as of the Settlement Date, the Company was and is a “well-known seasoned issuer” (as defined in Rule 405).

(pp) Independent Accountants. Deloitte & Touche LLP, who have expressed their opinion with respect to the financial statements (which term as used in this Agreement includes the related notes thereto) of the Company filed with the Commission as a part of the Registration

Statement and incorporated by reference in the Prospectus are (i) independent public accountants as required by the Securities Act and the Exchange Act, (ii) in compliance with the applicable requirements relating to the qualification of accountants under Rule 2-01 of Regulation S-X; and (iii) a registered public accounting firm as defined by the Public Company Accounting Oversight Board (the “PCAOB”) whose registration has not been suspended or revoked and who has not requested such registration to be withdrawn.

(qq) FINRA Matters. All of the information provided to the Agent or to counsel for the Agent by the Company, its officers and directors and the holders of any securities (debt or equity) or options to acquire any securities of the Company in connection with letters, filings or other supplemental information provided to Financial Industry Regulatory Authority, Inc. (“FINRA”) pursuant to FINRA Rules 5110, 5190 and 5121 is true, complete and correct. Neither the Company nor any of its Affiliates directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, or is a person associated with any member firm of FINRA.

(rr) Duties, Transfer Taxes, Etc. No stamp or other issuance or transfer taxes or duties and no capital gains, income, withholding or other taxes are payable by the Agent in the United States or any political subdivision or taxing authority thereof or therein in connection with the execution, delivery or performance of this Agreement by the Company or the sale and delivery by the Company of the Shares.

(ss) Cybersecurity. (i) Except as may be included or incorporated by reference in the Registration Statement and the Prospectus, (x) to the Company’s knowledge, 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, equipment or technology owned, held or used by or for the Company (including the data of its respective customers, employees, suppliers, vendors and any third party data maintained by or on behalf of the Company) (collectively, the “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 the 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 the IT Systems and Data and to the protection of the 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, reasonably be expected to have a Material Adverse Change; and (iii) the Company has implemented backup and disaster recovery technology consistent with industry standards and practices.

(tt) Underwriter Agreements. The Company is not a party to any agreement with an agent or underwriter for any other “at the market” or continuous equity transaction.

Any certificate signed by any officer or representative of the Company or any of its subsidiaries and delivered to the Agent or counsel for the Agent in connection with an issuance of Shares shall be deemed a representation and warranty by the Company to the Agent as to the matters covered thereby on the date of such certificate.

The Company acknowledges that the Agent and, for purposes of the opinions to be delivered pursuant to Section 4(o) hereof, counsel to the Company and counsel to the Agent, will rely upon the accuracy and truthfulness of the foregoing representations and hereby consents to such reliance.

Section 3. ISSUANCE AND SALE OF COMMON SHARES

(a) Sale of Securities. On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company and the Agent agree that the Company may from time to time seek to sell Shares through the Agent, acting as sales agent, or directly to the Agent, acting as principal, as follows, with an aggregate Sales Price of up to the Maximum Program Amount, based on and in accordance with Issuance Notices as the Company may deliver, during the Agency Period.

(b) Mechanics of Issuances.

(i) Issuance Notice. Upon the terms and subject to the conditions set forth herein, on any Trading Day during the Agency Period on which the conditions set forth in Section 5(a) and Section 5(b) shall have been satisfied, the Company may exercise its right to request an issuance of Shares by delivering to the Agent an Issuance Notice; *provided, however,* that (A) in no event may the Company deliver an Issuance Notice to the extent that (I) the sum of (x) the aggregate Sales Price of the requested Issuance Amount, plus (y) the aggregate Sales Price of all Shares issued under all previous Issuance Notices effected pursuant to this Agreement, would exceed the Maximum Program Amount; and (B) prior to delivery of any Issuance Notice, the period set forth for any previous Issuance Notice shall have expired or been terminated. An Issuance Notice shall be considered delivered on the Trading Day that it is received by e-mail to the persons set forth in Schedule A hereto and confirmed by the Company by telephone (including a voicemail message to the persons so identified), with the understanding that, with adequate prior written notice, the Agent may modify the list of such persons from time to time.

(ii) Agent Efforts. Upon the terms and subject to the conditions set forth in this Agreement, upon the receipt of an Issuance Notice, the Agent will use its commercially reasonable efforts consistent with its normal sales and trading practices to place the Shares with respect to which the Agent has agreed to act as sales agent, subject to, and in accordance with the information specified in, the Issuance Notice, unless the sale of the Shares described therein has been suspended, cancelled or otherwise terminated in accordance with the terms of this Agreement. For the avoidance of doubt, the parties to this Agreement may modify an Issuance Notice at any time provided they both agree in writing to any such modification.

(iii) Method of Offer and Sale. The Shares may be offered and sold (A) in privately negotiated transactions with the consent of the Company; (B) as block transactions; or (C) by any other method permitted by law deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act, including sales made directly on the Principal Market or sales made into any other existing trading market of the Common Shares. Nothing in this Agreement shall be deemed to require either party to agree to the method of offer and sale specified in the preceding sentence, and (except as specified in clauses (A) and (B) above) the method of placement of any Shares by the Agent shall be at the Agent’s discretion.

(iv) Confirmation to the Company. If acting as sales agent hereunder, the Agent will provide written confirmation to the Company no later than the opening of the Trading Day next following the Trading Day on which it has placed Shares hereunder setting forth the number of shares sold on such Trading Day, the corresponding Sales Price and the Issuance Price payable to the Company in respect thereof.

(v) Settlement. Each issuance of Shares will be settled on the applicable Settlement Date for such issuance of Shares and, subject to the provisions of Section 5, on or before each Settlement Date, the Company will, or will cause its transfer agent to, electronically transfer the Shares being sold by crediting the Agent or its designee's account at The Depository Trust Company through its Deposit/Withdrawal At Custodian (DWAC) System, or by such other means of delivery as may be mutually agreed upon by the parties hereto and, upon receipt of such Shares, which in all cases shall be freely tradable, transferable, registered shares in good deliverable form, the Agent will deliver, by wire transfer of immediately available funds, the related Issuance Price in same day funds delivered to an account designated by the Company prior to the Settlement Date. The Company may sell Shares to the Agent as principal at a price agreed upon at each relevant time Shares are sold pursuant to this Agreement (each, a "Time of Sale").

(vi) Suspension or Termination of Sales. Consistent with standard market settlement practices, the Company or the Agent may, upon notice to the other party hereto in writing or by telephone (confirmed immediately by verifiable email), suspend any sale of Shares, and the period set forth in an Issuance Notice shall immediately terminate; *provided, however*, that (A) such suspension and termination shall not affect or impair either party's obligations with respect to any Shares placed or sold hereunder prior to the receipt of such notice; (B) if the Company suspends or terminates any sale of Shares after the Agent confirms such sale to the Company, the Company shall still be obligated to comply with Section 3(b)(v) with respect to such Shares; and (C) if the Company defaults in its obligation to deliver Shares on a Settlement Date, the Company agrees that it will hold the Agent harmless against any loss, claim, damage or expense (including, without limitation, penalties, interest and reasonable legal fees and expenses), as incurred, arising out of or in connection with such default by the Company. The parties hereto acknowledge and agree that, in performing its obligations under this Agreement, the Agent may borrow Common Shares from stock lenders in the event that the Company has not delivered Shares to settle sales as required by subsection (v) above, and may use the Shares to settle or close out such borrowings. The Company agrees that no such notice shall be effective against the Agent unless it is made to the persons identified in writing by the Agent pursuant to Section 3(b)(i).

(vii) No Guarantee of Placement, Etc. The Company acknowledges and agrees that (A) there can be no assurance that the Agent will be successful in placing Shares; (B) the Agent will incur no liability or obligation to the Company or any other Person if it does not sell Shares; and (C) the Agent shall be under no obligation to purchase Shares on a principal basis pursuant to this Agreement, except as otherwise specifically agreed by the Agent and the Company.

(viii) Material Non-Public Information. Notwithstanding any other provision of this Agreement, the Company and the Agent agree that the Company shall not deliver any Issuance Notice to the Agent, and the Agent shall not be obligated to place any Shares, during any period in which the Company believes it is in possession of material non-public information.

(c) **Fees.** As compensation for services rendered, the Company shall pay to the Agent, on the applicable Settlement Date, the Selling Commission for the applicable Issuance Amount (including with respect to any suspended or terminated sale pursuant to Section 3(b)(vi)) by the Agent deducting the Selling Commission from the applicable Issuance Amount.

(d) **Expenses.** The Company agrees to pay all costs, fees and expenses incurred in connection with the performance of its obligations hereunder and in connection with the transactions contemplated hereby, including without limitation (i) all expenses incident to the issuance and delivery of the Shares (including all printing and engraving costs); (ii) all fees and expenses of the registrar and transfer agent of the Shares; (iii) all necessary issue, transfer and other stamp taxes in connection with the issuance and sale of the Shares; (iv) all fees and expenses of the Company's counsel, independent public or certified public accountants and other advisors; (v) all costs and expenses incurred in connection with the preparation, printing, filing, shipping and distribution of the Registration Statement (including financial statements, exhibits, schedules, consents and certificates of experts), the Prospectus, any Free Writing Prospectus (as defined below) prepared by or on behalf of, used by, or referred to by the Company, and all amendments and supplements thereto, and this Agreement; (vi) all filing fees, attorneys' fees and expenses incurred by the Company or the Agent in connection with qualifying or registering (or obtaining exemptions from the qualification or registration of) all or any part of the Shares for offer and sale under the state securities or blue sky laws or the provincial securities laws of Canada, and, if requested by the Agent, preparing and printing a "Blue Sky Survey" or memorandum and a "Canadian wrapper", and any supplements thereto, advising the Agent of such qualifications, registrations, determinations and exemptions; (vii) the reasonable fees and disbursements of the Agent's counsel, including the reasonable fees and expenses of counsel for the Agent in connection with, FINRA review, if any, and approval of the Agent's participation in the offering and distribution of the Shares; (viii) the filing fees incident to FINRA review, if any; and (ix) the fees and expenses associated with listing the Shares on the Principal Market. The fees and disbursements of Agent's counsel pursuant to subsections (vi) and (vii) above shall not exceed \$50,000.

Section 4. ADDITIONAL COVENANTS

The Company covenants and agrees with the Agent as follows, in addition to any other covenants and agreements made elsewhere in this Agreement:

(a) **Exchange Act Compliance.** During the Agency Period, the Company shall (i) file, on a timely basis, with the Commission all reports and documents required to be filed under Section 13, 14 or 15 of the Exchange Act in the manner and within the time periods required by the Exchange Act; and (ii) either (A) include in its quarterly reports on Form 10-Q and its annual reports on Form 10-K, a summary detailing, for the relevant reporting period, (1) the number of Shares sold through the Agent pursuant to this Agreement and (2) the net proceeds received by the Company from such sales or (B) prepare a prospectus supplement containing, or include in such other filing permitted by the Securities Act or Exchange Act (each an "**Interim Prospectus Supplement**"), such summary information and, at least once a quarter and subject to this Section 4, file such Interim Prospectus Supplement pursuant to Rule 424(b) under the Securities Act (and within the time periods required by Rule 424(b) and Rule 430B under the Securities Act)).

(b) Securities Act Compliance. After the date of this Agreement, the Company shall promptly advise the Agent in writing (i) of the receipt of any comments of, or requests for additional or supplemental information from, the Commission; (ii) of the time and date of any filing of any post-effective amendment to the Registration Statement, any Rule 462(b) Registration Statement or any amendment or supplement to the Prospectus, any Free Writing Prospectus; (iii) of the time and date that any post-effective amendment to the Registration Statement or any Rule 462(b) Registration Statement becomes effective; and (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto, any Rule 462(b) Registration Statement or any amendment or supplement to the Prospectus or of any order preventing or suspending the use of any Free Writing Prospectus or the Prospectus, or of any proceedings to remove, suspend or terminate from listing or quotation the Common Shares from any securities exchange upon which they are listed for trading or included or designated for quotation, or of the threatening or initiation of any proceedings for any of such purposes. If the Commission shall enter any such stop order at any time, the Company will use its reasonable best efforts to obtain the lifting of such order as soon as practicable. Additionally, the Company agrees that it shall comply with the provisions of Rule 424(b) and Rule 433, as applicable, under the Securities Act and will use its reasonable efforts to confirm that any filings made by the Company under such Rule 424(b) or Rule 433 were received in a timely manner by the Commission.

(c) Amendments and Supplements to the Prospectus and Other Securities Act Matters. If any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Prospectus so that the Prospectus does not include an 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 when the Prospectus is delivered to a purchaser, not misleading, or if in the opinion of the Agent or counsel for the Agent it is otherwise necessary to amend or supplement the Prospectus to comply with applicable law, including the Securities Act, the Company agrees (subject to Section 4(d) and 4(f)) to promptly prepare, file with the Commission and furnish at its own expense to the Agent, amendments or supplements to the Prospectus so that the statements in the Prospectus as so amended or supplemented will not include an 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 when the Prospectus is delivered to a purchaser, be misleading or so that the Prospectus, as amended or supplemented, will comply with applicable law including the Securities Act. Neither the Agent's consent to, or delivery of, any such amendment or supplement shall constitute a waiver of any of the Company's obligations under Sections 4(d) and 4(f).

(d) Agent's Review of Proposed Amendments and Supplements. Prior to amending or supplementing the Registration Statement (including any registration statement filed under Rule 462(b) under the Securities Act) or the Prospectus (excluding any amendment or supplement through incorporation of any report filed under the Exchange Act) that affects the offer and sale of the Shares as contemplated by this Agreement, the Company shall furnish to the Agent for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of each such proposed amendment or supplement, and the Company shall not file or use any such proposed amendment or supplement without the Agent's prior consent, and to file with the Commission within the applicable period specified in Rule 424(b) under the Securities Act any prospectus required to be filed pursuant to such Rule.

(e) Use of Free Writing Prospectus. Neither the Company nor the Agent has prepared, used, referred to or distributed, or will prepare, use, refer to or distribute, without the other party's prior written consent, any "written communication" that constitutes a "free writing prospectus" as such terms are defined in Rule 405 under the Securities Act with respect to the offering contemplated by this Agreement (any such free writing prospectus being referred to herein as a "**Free Writing Prospectus**").

(f) Free Writing Prospectuses. The Company shall furnish to the Agent for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of each proposed free writing prospectus or any amendment or supplement thereto to be prepared by or on behalf of, used by, or referred to by the Company and the Company shall not file, use or refer to any proposed free writing prospectus or any amendment or supplement thereto without the Agent's consent. The Company shall furnish to the Agent, without charge, as many copies of any free writing prospectus prepared by or on behalf of, or used by the Company, as the Agent may reasonably request. If at any time when a prospectus is required by the Securities Act (including, without limitation, pursuant to Rule 173(d)) to be delivered in connection with sales of the Shares (but in any event if at any time through and including the date of this Agreement) there occurred or occurs an event or development as a result of which any free writing prospectus prepared by or on behalf of, used by, or referred to by the Company conflicted or would conflict with the information contained in the Registration Statement or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at that subsequent time, not misleading, the Company shall promptly amend or supplement such free writing prospectus to eliminate or correct such conflict or so that the statements in such free writing prospectus as so amended or supplemented will not include an 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 prevailing at such subsequent time, not misleading, as the case may be; *provided, however*, that prior to amending or supplementing any such free writing prospectus, the Company shall furnish to the Agent for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of such proposed amended or supplemented free writing prospectus and the Company shall not file, use or refer to any such amended or supplemented free writing prospectus without the Agent's consent.

(g) Filing of Agent Free Writing Prospectuses. The Company shall not to take any action that would result in the Agent or the Company being required to file with the Commission pursuant to Rule 433(d) under the Securities Act a free writing prospectus prepared by or on behalf of the Agent that the Agent otherwise would not have been required to file thereunder.

(h) Copies of Registration Statement and Prospectus. After the date of this Agreement through the last time that a prospectus is required by the Securities Act (including, without limitation, pursuant to Rule 173(d)) to be delivered in connection with sales of the Shares, the Company agrees to furnish the Agent with copies (which may be electronic copies) of the Registration Statement and each amendment thereto, and with copies of the Prospectus and each amendment or supplement thereto in the form in which it is filed with the Commission pursuant to the Securities Act or Rule 424(b) under the Securities Act, both in such quantities as the Agent may reasonably request from time to time; and, if the delivery of a prospectus is required under the Securities Act or under the blue sky or securities laws of any jurisdiction at any time on or

prior to the applicable Settlement Date for any period set forth in an Issuance Notice in connection with the offering or sale of the Shares and if at such time any event has occurred 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 any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made when such Prospectus is delivered, not misleading, or, if for any other reason it is necessary during such same period to amend or supplement the Prospectus or to file under the Exchange Act any document incorporated by reference in the Prospectus in order to comply with the Securities Act or the Exchange Act, to notify the Agent and to request that the Agent suspend offers to sell Shares (and, if so notified, the Agent shall cease such offers as soon as practicable); and if the Company decides to amend or supplement the Registration Statement or the Prospectus as then amended or supplemented, to advise the Agent promptly by telephone (with confirmation in writing) and to prepare and cause to be filed promptly with the Commission an amendment or supplement to the Registration Statement or the Prospectus as then amended or supplemented that will correct such statement or omission or effect such compliance; provided, however, that if during such same period the Agent is required to deliver a prospectus in respect of transactions in the Shares, the Company shall promptly prepare and file with the Commission such an amendment or supplement.

(i) Blue Sky Compliance. The Company shall cooperate with the Agent and counsel for the Agent to qualify or register the Shares for sale under (or obtain exemptions from the application of) the state securities or blue sky laws or Canadian provincial securities laws of those jurisdictions designated by the Agent, shall comply with such laws and shall continue such qualifications, registrations and exemptions in effect so long as required for the distribution of the Shares. The Company shall not be required to qualify as a foreign corporation or to take any action that would subject it to general service of process in any such jurisdiction where it is not presently qualified or where it would be subject to taxation as a foreign corporation. The Company will advise the Agent promptly of the suspension of the qualification or registration of (or any such exemption relating to) the Shares for offering, sale or trading in any jurisdiction or any initiation or threat of any proceeding for any such purpose, and in the event of the issuance of any order suspending such qualification, registration or exemption, the Company shall use its best efforts to obtain the withdrawal thereof as soon as practicable.

(j) Earnings Statement. As soon as practicable, the Company will make generally available to its security holders and to the Agent an earnings statement (which need not be audited) covering a period of at least twelve months beginning with the first fiscal quarter of the Company occurring after the date of this Agreement which shall satisfy the provisions of Section 11(a) of the Securities Act and Rule 158 under the Securities Act.

(k) Listing; Reservation of Shares. (a) The Company will maintain the listing of the Shares on the Principal Market; and (b) the Company will reserve and keep available at all times, free of preemptive rights, Shares for the purpose of enabling the Company to satisfy its obligations pursuant to an outstanding Issuance Notice under this Agreement.

(l) Transfer Agent. The Company shall engage and maintain, at its expense, a registrar and transfer agent for the Shares.

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

(n) Representations and Warranties. The Company acknowledges that each delivery of an Issuance Notice and each delivery of Shares on a Settlement Date shall be deemed to be (i) an affirmation to the Agent that the representations and warranties of the Company contained in or made pursuant to this Agreement are true and correct as of the date of such Issuance Notice or of such Settlement Date, as the case may be, as though made at and as of each such date, except as may be disclosed in the Prospectus (including any documents incorporated by reference therein and any supplements thereto); and (ii) an undertaking that the Company will advise the Agent if any of such representations and warranties will not be true and correct as of the Settlement Date for the Shares relating to such Issuance Notice, as though made at and as of each such date (except that such representations and warranties shall be deemed to relate to the Registration Statement and the Prospectus as amended and supplemented relating to such Shares).

(o) Deliverables at Triggering Event Dates: Certificates. The Company agrees that on or prior to the date of the first Issuance Notice and, during the term of this Agreement after the date of the first Issuance Notice, upon:

(A) the filing of the Prospectus or the amendment or supplement of any Registration Statement or Prospectus (other than a prospectus supplement relating solely to an offering of securities other than the Shares or a prospectus filed pursuant to Section 4(a)(ii)(B)), by means of a post-effective amendment, sticker or supplement, but not by means of incorporation of documents by reference into the Registration Statement or Prospectus;

(B) the filing with the Commission of an annual report on Form 10-K or a quarterly report on Form 10-Q (including any Form 10-K/A or Form 10-Q/A containing amended financial information or a material amendment to the previously filed annual report on Form 10-K or quarterly report on Form 10-Q), in each case, of the Company; or

(C) the filing with the Commission of a current report on Form 8-K of the Company containing amended financial information (other than information "furnished" pursuant to Item 2.02 or 7.01 of Form 8-K or to provide disclosure pursuant to Item 8.01 of Form 8-K relating to reclassification of certain properties as discontinued operations in accordance with Statement of Financial Accounting Standards No. 144) that is material to the offering of securities of the Company in the Agent's reasonable discretion;

(any such event, a "**Triggering Event Date**"), the Company shall furnish the Agent (but in the case of clause (C) above only if the Agent reasonably determines that the information contained in such current report on Form 8-K of the Company is material) with a certificate as of the Triggering Event Date, in the form and substance satisfactory to the Agent and its counsel, substantially similar to the form previously provided to the Agent and its counsel, modified, as necessary, to relate to the Registration Statement and the Prospectus as amended or supplemented, (A) confirming that the representations and warranties of the Company contained in this

Agreement are true and correct, (B) that the Company has performed all of its obligations hereunder to be performed on or prior to the date of such certificate and as to the matters set forth in Section 5(a)(i) hereof, and (C) containing any other certification that the Agent shall reasonably request. The requirement to provide a certificate under this Section 4(o) shall be automatically waived with no further action of the Agent or Company for any Triggering Event Date occurring at a time when no Issuance Notice is pending or a suspension is in effect, which automatic waiver shall continue until the date the Company delivers instructions for the sale of Shares hereunder (which for such calendar quarter shall be considered a Triggering Event Date). Notwithstanding the foregoing, if the Company subsequently decides to sell Shares following a Triggering Event Date when a suspension was in effect and did not provide the Agent with a certificate under this Section 4(o), then before the Company delivers the instructions for the sale of Shares or the Agent sells any Shares pursuant to such instructions, the Company shall provide the Agent with a certificate in conformity with this Section 4(o) dated as of the date that the instructions for the sale of Shares are issued.

(p) Legal Opinions. On or prior to the date of the first Issuance Notice and within five (5) Trading Days of each Triggering Event Date with respect to which the Company is obligated to deliver a certificate pursuant to Section 4(o) for which no waiver is applicable and excluding the date of this Agreement, the Company shall cause to be furnished, at the request of the Agent, a negative assurances letter and the written legal opinion of Latham & Watkins LLP, counsel to the Company and D.T. Ward, PC, intellectual property counsel to the Company, each dated the date of delivery, in form and substance reasonably satisfactory to Agent and its counsel, substantially similar to the form previously provided to the Agent and its counsel, modified, as necessary, to relate to the Registration Statement and the Prospectus as then amended or supplemented; provided, however, the Company shall be required to furnish no more than one opinion hereunder per calendar quarter. In lieu of such opinions for subsequent periodic filings, in the discretion of the Agent, the Company may furnish a reliance letter from such counsel to the Agent, permitting the Agent to rely on a previously delivered opinion letter, modified as appropriate for any passage of time or Triggering Event Date (except that statements in such prior opinion shall be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented as of such Triggering Event Date).

(q) Comfort Letter. On or prior to the date of the first Issuance Notice and within five (5) Trading Days of each Triggering Event Date with respect to which the Company is obligated to deliver a certificate pursuant to Section 4(o) for which no waiver is applicable and excluding the date of this Agreement, the Company shall cause Deloitte & Touche LLP, the independent registered public accounting firm who has audited the financial statements included or incorporated by reference in the Registration Statement, to furnish the Agent a comfort letter, dated the date of delivery, in form and substance reasonably satisfactory to the Agent and its counsel, substantially similar to the form previously provided to the Agent and its counsel; provided, however, that any such comfort letter will only be required on the Triggering Event Date specified to the extent that it contains financial statements filed with the Commission under the Exchange Act and incorporated or deemed to be incorporated by reference into a Prospectus. At any time when an Issuance Notice is pending and no suspension thereto is in effect, if requested by the Agent, the Company shall also cause a comfort letter to be furnished to the Agent within ten (10) Trading Days of the date of occurrence of any material transaction or event requiring the filing of a current report on Form 8-K containing material amended financial information of the Company,

including the restatement of the Company's financial statements. The Company shall be required to furnish no more than one comfort letter hereunder per calendar quarter.

(r) Secretary's Certificate. On or prior to the date of the first Issuance Notice and within five (5) Trading Days of each Triggering Event Date, the Company shall furnish the Agent a certificate executed by the Secretary of the Company, signing in such capacity, dated the date of delivery (i) certifying that attached thereto are true and complete copies of the resolutions duly adopted by the Board of Directors of the Company authorizing the execution and delivery of this Agreement and the consummation of the transactions contemplated hereby (including, without limitation, the issuance of the Shares pursuant to this Agreement), which authorization shall be in full force and effect on and as of the date of such certificate, (ii) certifying and attesting to the office, incumbency, due authority and specimen signatures of each Person who executed this Agreement for or on behalf of the Company, and (iii) containing any other certification that the Agent shall reasonably request.

(s) Agent's Own Account; Clients' Account. The Company consents to the Agent trading, in compliance with applicable law, in the Common Shares for the Agent's own account and for the account of its clients at the same time as sales of the Shares occur pursuant to this Agreement.

(t) Investment Limitation. The Company shall not invest, or otherwise use the proceeds received by the Company from its sale of the Shares in such a manner as would require the Company or any of its subsidiaries to register as an investment company under the Investment Company Act.

(u) Market Activities. The Company will not take, directly or indirectly, any action designed to or that might be reasonably expected to cause or result in stabilization or manipulation of the price of the Shares or any other reference security, whether to facilitate the sale or resale of the Shares or otherwise, and the Company will, and shall use commercially reasonable efforts to cause each of its affiliates to, comply with all applicable provisions of Regulation M. If the limitations of Rule 102 of Regulation M ("**Rule 102**") do not apply with respect to the Shares or any other reference security pursuant to any exception set forth in Section (d) of Rule 102, then promptly upon notice from the Agent (or, if later, at the time stated in the notice), the Company will, and shall use commercially reasonable efforts to cause each of its affiliates to, comply with Rule 102 as though such exception were not available but the other provisions of Rule 102 (as interpreted by the Commission) did apply.

(v) Notice of Other Sale. Without the written consent of the Agent, the Company will not, directly or indirectly, offer to sell, sell, contract to sell, grant any option to sell or otherwise dispose of any Common Shares or securities convertible into or exchangeable for Common Shares (other than Shares hereunder), warrants or any rights to purchase or acquire Common Shares, during the period beginning on the date on which any Issuance Notice is delivered to the Agent hereunder and ending on the earlier of (x) the Settlement Date with respect to Shares sold pursuant to such Issuance Notice and (y) the suspension by the Company of such period set forth in such Issuance Notice; provided, however, that such restriction will not apply in connection with the Company's (i) issuance or sale of Common Shares, options to purchase Common Shares or Common Shares issuable upon the exercise of options or other equity awards pursuant to any

employee or director share option, incentive or benefit plan, share purchase or ownership plan, long-term incentive plan, dividend reinvestment plan, inducement award under the Principal Market rules or other compensation plan of the Company or its subsidiaries, whether now in effect or hereinafter approved by the board of directors and implemented, (ii) issuance or sale of Common Shares issuable upon exchange, conversion or redemption of securities or the exercise or vesting of warrants, options or other equity awards outstanding or disclosed in filings by the Company available on EDGAR or otherwise in writing to the Agent, (iii) issuance or sale of Common Shares or securities convertible into or exchangeable for Common Shares as consideration for mergers, acquisitions, other business combinations, joint ventures, collaborations or strategic alliances occurring after the date of this Agreement which are not used for capital raising purposes, (iv) modification of any outstanding options, warrants or any rights to purchase or acquire Common Shares, (v) issuance or sale of Common Shares, or securities convertible into or exercisable for Common Shares, 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 Shares hereby and (vi) for the avoidance of doubt, non-public discussions or negotiations with respect to any of the foregoing.

Section 5. CONDITIONS TO DELIVERY OF ISSUANCE NOTICES AND TO SETTLEMENT

(a) Conditions Precedent to the Right of the Company to Deliver an Issuance Notice and the Obligation of the Agent to Sell Shares. The right of the Company to deliver an Issuance Notice hereunder is subject to the satisfaction, on the date of delivery of such Issuance Notice, and the obligation of the Agent to use its commercially reasonable efforts to place Shares during the applicable period set forth in the Issuance Notice is subject to the satisfaction, on each Trading Day during the applicable period set forth in the Issuance Notice, of each of the following conditions:

- (i) Accuracy of the Company's Representations and Warranties; Performance by the Company. The Company shall have delivered the certificate required to be delivered pursuant to Section 4(o) on or before the date on which delivery of such certificate is required pursuant to Section 4(o). The Company shall have performed, satisfied and complied with all covenants, agreements and conditions required by this Agreement to be performed, satisfied or complied with by the Company at or prior to such date, including, but not limited to, the covenants contained in Section 4(p), Section 4(q) and Section 4(r).
- (ii) No Injunction. No statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by any court or governmental authority of competent jurisdiction or any self-regulatory organization having authority over the matters contemplated hereby that prohibits or directly and materially adversely affects any of the transactions contemplated by this Agreement, and no proceeding shall have been commenced that may have the effect of prohibiting or materially adversely affecting any of the transactions contemplated by this Agreement.

- (iii) Material Adverse Changes. Except as disclosed in the Prospectus and the Time of Sale Information, (a) there shall not have occurred any Material Adverse Change that, in the judgment of the Agent, makes it impracticable and inadvisable to market the Shares on the terms and in the manner contemplated in the Prospectus and the Time of Sale Information; and (b) there shall not have occurred any downgrading, nor shall any notice have been given of any intended or potential downgrading or of any review for a possible change that does not indicate the direction of the possible change, in the rating accorded any securities of the Company or any of its subsidiaries by any “nationally recognized statistical rating organization” as such term is defined for purposes of Section 3(a)(62) of the Exchange Act.
- (iv) No Suspension of Trading in or Delisting of Common Shares; Other Events. The trading of the Common Shares (including without limitation the Shares) shall not have been suspended by the Commission, the Principal Market or FINRA and the Common Shares (including without limitation the Shares) shall have been approved for listing or quotation on and shall not have been delisted from the Principal Market. There shall not have occurred (and be continuing in the case of occurrences under clauses (i) and (ii) below) any of the following: (i) trading or quotation in any of the Company’s securities shall have been suspended or limited by the Commission or by the Principal Market, or trading in securities generally on the Principal Market shall have been suspended or limited, or minimum or maximum prices shall have been generally established on any of such stock exchanges by the Commission or FINRA; (ii) a general banking moratorium shall have been declared by any federal or New York authorities; or (iii) there shall have occurred any outbreak or escalation of national or international hostilities or any crisis or calamity, or any change in the United States or international financial markets, or any substantial change or development involving a prospective substantial change in United States’ or international political, financial or economic conditions, that, in any such case, in the judgment of the Agent is material and adverse and makes it impracticable and inadvisable to market the Shares in the manner and on the terms described in the Prospectus or to enforce contracts for the sale of securities.
- (b) Documents Required to be Delivered on each Issuance Notice Date. The Agent’s obligation to use its commercially reasonable efforts to place Shares hereunder shall additionally be conditioned upon the delivery to the Agent on or before the Issuance Notice Date of a certificate in form and substance reasonably satisfactory to the Agent, executed by the Chief Executive Officer, President or Chief Financial Officer of the Company, to the effect that all conditions to the delivery of such Issuance Notice shall have been satisfied as at the date of such certificate (which certificate shall not be required if the foregoing representations shall be set forth in the Issuance Notice).
- (c) No Misstatement or Material Omission. Agent shall not have advised the Company that the Registration Statement, the Prospectus or the Times of Sale Information, or any amendment or supplement thereto, contains an untrue statement of fact that in the Agent’s reasonable opinion is material, or omits to state a fact that in the Agent’s reasonable opinion is material and is required to be stated therein or is necessary to make the statements therein not misleading.

Section 6. INDEMNIFICATION AND CONTRIBUTION

(a) Indemnification of the Agent. The Company agrees to indemnify and hold harmless the Agent, its officers and employees, and each person, if any, who controls the Agent within the meaning of the Securities Act or the Exchange Act against any loss, claim, damage, liability or expense, as incurred, to which the Agent or such officer, employee or controlling person may become subject, under the Securities Act, the Exchange Act, other federal or state statutory law or regulation, or the laws or regulations of foreign jurisdictions where Shares have been offered or sold or at common law or otherwise (including in settlement of any litigation), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) 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 any amendment thereto, including any information deemed to be a part thereof pursuant to Rule 430B under the Securities Act, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading; or (ii) any untrue statement or alleged untrue statement of a material fact contained in any Free Writing Prospectus that the Company has used, referred to or filed, or is required to file, pursuant to Rule 433(d) of the Securities Act or the Prospectus (or any amendment or supplement thereto), or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading and to reimburse the Agent and each such officer, employee and controlling person for any and all documented expenses (including the fees and disbursements of counsel chosen by the Agent) as such expenses are reasonably incurred by the Agent or such officer, employee or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action; provided, however, that the foregoing indemnity agreement shall not apply to any loss, claim, damage, liability or expense to the extent, but only to the extent, arising out of or based upon any untrue statement or alleged untrue statement or omission or alleged omission made in reliance upon and in conformity with written information furnished to the Company by the Agent expressly for use in the Registration Statement, any such Free Writing Prospectus or the Prospectus (or any amendment or supplement thereto), it being understood and agreed that the only such information furnished by the Agent to the Company consists of the information described in subsection (b) below. The indemnity agreement set forth in this Section 6(a) shall be in addition to any liabilities that the Company may otherwise have.

(b) Indemnification of the Company, its Directors and Officers. The Agent agrees to indemnify and hold harmless the Company, each of its directors, each of its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of the Securities Act or the Exchange Act against any loss, claim, damage, liability or expense, as incurred, to which the Company or any such director, officer or controlling person may become subject, under the Securities Act, the Exchange Act, or other federal or state statutory law or regulation, or the laws or regulations of foreign jurisdictions where Shares have been offered or sold or at common law or otherwise (including in settlement of any litigation), 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 any amendment thereto, including any information deemed to be a part thereof pursuant to Rule 430B under the Securities Act, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading; or (ii) any untrue statement or alleged untrue statement of a material fact

contained in any Free Writing Prospectus that the Company has used, referred to or filed, or is required to file, pursuant to Rule 433(d) of the Securities Act or the Prospectus (or any amendment or supplement thereto), or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; but, for each of (i) and (ii) above, only to the extent arising out of or based upon any untrue statement or alleged untrue statement or omission or alleged omission made in reliance upon and in conformity with written information furnished to the Company by the Agent expressly for use in the Registration Statement, any such Free Writing Prospectus or the Prospectus (or any amendment or supplement thereto), it being understood and agreed that the only such information furnished by the Agent to the Company consists of the information set forth in the final paragraph under the caption "Plan of Distribution" in the Prospectus, and to reimburse the Company and each such director, officer and controlling person for any and all expenses (including the fees and disbursements of one counsel chosen by the Company) as such expenses are reasonably incurred by the Company or such officer, director or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action. The indemnity agreement set forth in this Section 6(b) shall be in addition to any liabilities that the Agent or the Company may otherwise have.

(c) Notifications and Other Indemnification Procedures. Promptly after receipt by an indemnified party under this Section 6 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against an indemnifying party under this Section 6, notify the indemnifying party in writing of the commencement thereof, but the omission so to notify the indemnifying party will not relieve it from any liability which it may have to any indemnified party for contribution or otherwise than under the indemnity agreement contained in this Section 6 or to the extent it is not prejudiced as a proximate result of such failure. In case any such action is brought against any indemnified party and such indemnified party seeks or intends to seek indemnity from an indemnifying party, the indemnifying party will be entitled to participate in, and, to the extent that it shall elect, jointly with all other indemnifying parties similarly notified, by written notice delivered to the indemnified party promptly after receiving the aforesaid notice from such indemnified party, to assume the defense thereof with counsel reasonably satisfactory to such indemnified party; provided, however, if the defendants in any such action include both the indemnified party and the indemnifying party and the indemnified party shall have reasonably concluded that a conflict may arise between the positions of the indemnifying party and the indemnified party in conducting the defense of any such action or that there may be legal defenses available to it and/or other indemnified parties which are different from or additional to those available to the indemnifying party, the indemnified party or parties shall have the right to select separate counsel to assume such legal defenses and to otherwise participate in the defense of such action on behalf of such indemnified party or parties. Upon receipt of notice from the indemnifying party to such indemnified party of such indemnifying party's election so to assume the defense of such action and approval by the indemnified party of counsel, the indemnifying party will not be liable to such indemnified party under this Section 6 for any reasonable and documented legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof unless (i) the indemnified party shall have employed separate counsel in accordance with the proviso to the preceding sentence (it being understood, however, that the indemnifying party shall not be liable for the fees and expenses of more than one separate counsel (together with local counsel), representing the indemnified parties who are parties to such action), which counsel (together with any local counsel) for the indemnified

parties shall be selected by the Agent (in the case of counsel for the indemnified parties referred to in Section 6(a) above) or the Company (in the case of counsel for the indemnified parties referred to in Section 6(b) above), (ii) the indemnifying party shall not have employed counsel reasonably satisfactory to the indemnified party to represent the indemnified party within a reasonable time after notice of commencement of the action or (iii) the indemnifying party has authorized in writing the employment of counsel for the indemnified party at the expense of the indemnifying party, in each of which cases the fees and expenses of counsel shall be at the expense of the indemnifying party and shall be paid as they are incurred.

(d) Settlements. The indemnifying party under this Section 6 shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party against any loss, claim, damage, liability or expense by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel as contemplated by Section 6(e) hereof, the indemnifying party 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 30 days after receipt by such indemnifying party of the aforesaid request; and (ii) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any indemnified party is or could have been a party and indemnity was or could have been sought hereunder by such indemnified party, unless such settlement, compromise or consent includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such action, suit or proceeding.

(e) Contribution. If the indemnification provided for in this Section 6 is for any reason held to be unavailable to or otherwise insufficient to hold harmless an indemnified party in respect of any losses, claims, damages, liabilities or expenses referred to therein, then each indemnifying party shall contribute to the aggregate amount paid or payable by such indemnified party, as incurred, as a result of any losses, claims, damages, liabilities or expenses referred to therein (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Agent, on the other hand, from the offering of the Shares pursuant to this Agreement; 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 the Agent, on the other hand, in connection with the statements or omissions which resulted in such losses, claims, damages, liabilities or expenses, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Agent, on the other hand, in connection with the offering of the Shares pursuant to this Agreement shall be deemed to be in the same respective proportions as the total gross proceeds from the offering of the Shares (before deducting expenses) received by the Company bear to the total commissions received by the Agent. The relative fault of the Company, on the one hand, and the Agent, on the other hand, shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company, on the one hand, or the Agent, on the other hand, 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, claims, damages, liabilities and expenses referred to above shall be deemed to include, subject to the limitations set forth in Section 6(c), any reasonable and documented legal or other fees or expenses reasonably incurred by such party in connection with investigating or defending any action or claim. The provisions set forth in Section 6(c) with respect to notice of commencement of any action shall apply if a claim for contribution is to be made under this Section 6(e); *provided, however*, that no additional notice shall be required with respect to any action for which notice has been given under Section 6(c) for purposes of indemnification.

The Company and the Agent agree that it would not be just and equitable if contribution pursuant to this Section 6(e) 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 this Section 6(e).

Notwithstanding the provisions of this Section 6(e), the Agent shall not be required to contribute any amount in excess of the Selling Commission received by the Agent in connection with the offering contemplated hereby. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 6(e), each officer and employee of the Agent and each person, if any, who controls the Agent within the meaning of the Securities Act or the Exchange Act shall have the same rights to contribution as the Agent, and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of the Securities Act and the Exchange Act shall have the same rights to contribution as the Company.

Section 7. TERMINATION & SURVIVAL

(a) Term. Subject to the provisions of this Section 7, the term of this Agreement shall continue from the date of this Agreement until the end of the Agency Period, unless earlier terminated by the parties to this Agreement pursuant to this Section 7.

(b) Termination: Survival Following Termination.

(i) Either party may terminate this Agreement prior to the end of the Agency Period, by giving written notice as required by this Agreement, upon ten (10) calendar days' notice to the other party; provided that, (A) if the Company terminates this Agreement after the Agent confirms to the Company any sale of Shares, the Company shall remain obligated to comply with Section 3(b)(v) with respect to such Shares and (B) Section 2, Section 3(d), Section 6, Section 7 and Section 8 shall survive termination of this Agreement. If termination shall occur prior to the Settlement Date for any sale of Shares, such sale shall nevertheless settle in accordance with the terms of this Agreement.

- (ii) In addition to the survival provision of Section 7(b)(i), the respective indemnities, agreements, representations, warranties and other statements of the Company, of its officers and of the Agent set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by or on behalf of the Agent or the Company or any of its or their partners, officers or directors or any controlling person, as the case may be, and, anything herein to the contrary notwithstanding, will survive delivery of and payment for the Shares sold hereunder and any termination of this Agreement.

Section 8. MISCELLANEOUS

(a) Press Releases and Disclosure. The Company may issue a press release describing the material terms of the transactions contemplated hereby as soon as practicable following the date of this Agreement, and may file with the Commission a Current Report on Form 8-K, with this Agreement attached as an exhibit thereto, describing the material terms of the transactions contemplated hereby, and the Company shall consult with the Agent prior to making such disclosures, and the parties hereto shall use all commercially reasonable efforts, acting in good faith, to agree upon a text for such disclosures that is reasonably satisfactory to all parties hereto. No party hereto shall issue thereafter any press release or like public statement (including, without limitation, any disclosure required in reports filed with the Commission pursuant to the Exchange Act) related to this Agreement or any of the transactions contemplated hereby without the prior written approval of the other party hereto, except as may be necessary or appropriate in the reasonable opinion of the party seeking to make disclosure to comply with the requirements of applicable law or stock exchange rules and except for the disclosure required pursuant to Section 4(a) of this Agreement in the Company's quarterly reports on Form 10-Q or annual reports on Form 10-K. If any such press release or like public statement is so required, the party making such disclosure shall consult with the other party prior to making such disclosure, and the parties shall use all commercially reasonable efforts, acting in good faith, to agree upon a text for such disclosure that is reasonably satisfactory to all parties hereto.

(b) No Advisory or Fiduciary Relationship. The Company acknowledges and agrees that (i) the transactions contemplated by this Agreement, including the determination of any fees, are arm's-length commercial transactions between the Company and the Agent, (ii) when acting as a principal under this Agreement, the Agent is and has been acting solely as a principal is not the agent or fiduciary of the Company, or its stockholders, creditors, employees or any other party, (iii) the Agent has not assumed nor will assume an advisory or fiduciary responsibility in favor of the Company with respect to the transactions contemplated hereby or the process leading thereto (irrespective of whether the Agent has advised or is currently advising the Company on other matters) and the Agent does not have any obligation to the Company with respect to the transactions contemplated hereby except the obligations expressly set forth in this Agreement, (iv) the Agent and its affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Company, and (v) the Agent has not provided any legal, accounting, regulatory or tax advice with respect to the transactions contemplated hereby and the Company has consulted its own legal, accounting, regulatory and tax advisors to the extent it deemed appropriate.

(c) Research Analyst Independence. The Company acknowledges that the Agent's research analysts and research departments are required to and should be independent from their respective investment banking divisions and are subject to certain regulations and internal policies, and as such the Agent's research analysts may hold views and make statements or investment recommendations and/or publish research reports with respect to the Company or the offering that differ from the views of their respective investment banking divisions. The Company understands that the Agent is a full service securities firm and as such from time to time, subject to applicable securities laws, may effect transactions for its own account or the account of its customers and hold long or short positions in debt or equity securities of the companies that may be the subject of the transactions contemplated by this Agreement.

(d) Notices. All communications hereunder shall be in writing and shall be mailed, hand delivered or telecopied and confirmed to the parties hereto as follows:

If to the Agent:

Jefferies LLC
520 Madison Avenue
New York, NY 10022
Facsimile:
Attention: General Counsel

with a copy (which shall not constitute notice) to:

Cooley LLP
55 Hudson Yards
New York, NY 10001
Facsimile: (212) 479-6275
Attention: Daniel I. Goldberg, Esq.

If to the Company:

Ra Pharmaceuticals, Inc.
87 Cambridge Park Drive
Cambridge, MA 02140
Attention: Chief Financial Officer

with a copy (which shall not constitute notice) to:

Latham & Watkins, LLP
200 Clarendon Street
Boston, MA 02116
Facsimile: (617) 948-6001
Attention: Peter N. Handrinos, Esq. and Wesley C. Holmes, Esq.

Any party hereto may change the address for receipt of communications by giving written notice to the others in accordance with this Section 8(d).

(e) Successors. This Agreement will inure to the benefit of and be binding upon the parties hereto, and to the benefit of the employees, officers and directors and controlling persons referred to in Section 6, and in each case their respective successors, and no other person will have any right or obligation hereunder. The term “successors” shall not include any purchaser of the Shares as such from the Agent merely by reason of such purchase.

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

(g) Governing Law Provisions. This Agreement shall be governed by and construed in accordance with the internal laws of the State of New York applicable to agreements made and to be performed in such state. Any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby (“**Related Proceedings**”) may be instituted in the federal courts of the United States of America located in the Borough of Manhattan in the City of New York or the courts of the State of New York in each case located in the Borough of Manhattan in the City of New York (collectively, the “**Specified Courts**”), and each party irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court (a “**Related Judgment**”), as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party’s address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum.

(h) General Provisions. This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. This Agreement may be executed in two or more counterparts, each one of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument, and may be delivered by facsimile transmission or by electronic delivery of a portable document format (PDF) file. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. The Article and Section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement.

[Signature Page Immediately Follows]

If the foregoing is in accordance with your understanding of our agreement, kindly sign and return to the Company the enclosed copies hereof, whereupon this instrument, along with all counterparts hereof, shall become a binding agreement in accordance with its terms

Very truly yours,

RA PHARMACEUTICALS, INC.

By: /s/ David C. Lubner
Name: David C. Lubner
Title: EVP, Chief Financial Officer

The foregoing Agreement is hereby confirmed and accepted by the Agent in New York, New York as of the date first above written.

JEFFERIES LLC

By: /s/ Matthew Kim
Name: Matthew Kim
Title: Managing Director

EXHIBIT A
ISSUANCE NOTICE

[Date]

Jefferies LLC
520 Madison Avenue
New York, New York 10022

Attn: []

Reference is made to the Open Market Sale Agreement between Ra Pharmaceuticals, Inc. (the “**Company**”) and Jefferies LLC (the “**Agent**”) dated as of May 9, 2019. The Company confirms that all conditions to the delivery of this Issuance Notice are satisfied as of the date hereof.

Date of Delivery of Issuance Notice (determined pursuant to Section 3(b)(i)):

Issuance Amount (equal to the total Sales Price for such Shares):

\$

Number of days in selling period:

First date of selling period:

Last date of selling period:

Settlement Date(s) if other than standard T+2 settlement:

Floor Price Limitation (in no event less than \$1.00 without the prior written consent of the Agent, which consent may be withheld in the Agent’s sole discretion): \$ per share

Comments:

By: _____
Name:
Title:

Schedule A
Notice Parties

The Company

Douglas A. Treco, Ph.D.

David C. Lubner

The Agent

Donald Lynaugh

Jack Fabbri

Matthew Kim
