
**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**

September 27, 2018

Date of report (Date of earliest event reported)

Axsome Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-37635
(Commission
File Number)

45-4241907
(IRS Employer
Identification No.)

25 Broadway, 9th Floor
New York, New York
(Address of principal executive offices)

10004
(Zip Code)

Registrant's telephone number, including area code **(212) 332-3241**

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K 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.

Item 1.01. Entry into a Material Definitive Agreement

On September 27, 2018, Axsome Therapeutics, Inc. (the “Company”) entered into a purchase agreement (the “Purchase Agreement”) with certain institutional and accredited investors (collectively, the “Investors”) for the sale by the Company directly to the Investors of an aggregate of 2,966,667 shares of the Company’s common stock, par value \$0.0001 per share (the “Common Stock”), at a purchase price of \$3.00 per share (the “Registered Direct Offering”). The Registered Direct Offering is expected to close on October 1, 2018, subject to customary closing conditions set forth in the Purchase Agreement. The Company intends to use the net proceeds of the Registered Direct Offering for working capital and general corporate purposes. The Company estimates that the net proceeds from the transactions will be approximately \$8.8 million after deducting estimated transaction expenses.

The 2,966,667 shares of Common Stock sold in the Registered Direct Offering were offered and sold by the Company directly to the Investors, without a placement agent, underwriter, broker or dealer, pursuant to an effective shelf registration statement on Form S-3, which was filed with the SEC on December 1, 2016 and subsequently declared effective on December 16, 2016 (File No. 333-214859), and the base prospectus dated as of December 16, 2016 contained therein. Prior to closing, the Company will file a prospectus supplement with the Securities and Exchange Commission relating to the offer and sale of the shares of Common Stock in the Registered Direct Offering.

The representations, warranties and covenants contained in the Purchase Agreement were made solely for the benefit of the Company and the Investors. In addition, such representations, warranties and covenants (i) are intended as a way of allocating the risk between the Company and the Investors and not as statements of fact, and (ii) may apply standards of materiality in a way that is different from what may be viewed as material by stockholders of, or other investors in, the Company. Moreover, information concerning the subject matter of the representations and warranties may change after the date of the Purchase Agreement, which subsequent information may or may not be fully reflected in public disclosures.

The foregoing description of the Purchase Agreement is not complete and is qualified in its entirety by references to the full text of the form of Purchase Agreement, the form of which is filed herewith as Exhibit 10.1 to this Current Report on Form 8-K and is incorporated by reference herein.

A copy of the opinion of DLA Piper LLP (US) relating to the validity of the shares of Common Stock issued in the Registered Direct Offering is filed herewith as Exhibit 5.1 to this Current Report on Form 8-K.

Item 8.01. Other Events.

On September 28, 2018, the Company issued a press release announcing the Registered Direct Offering. The full text of the press release is filed as Exhibit 99.1 hereto and is incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit Number</u>	<u>Description</u>
5.1	Opinion of DLA Piper LLP (US).
10.1	Form of Purchase Agreement, dated as of September 27, 2018, by and among Axsome Therapeutics, Inc. and the investors party thereto.
23.1	Consent of DLA Piper LLP (US) (contained in Exhibit 5.1).
99.1	Press release dated September 28, 2018.

SIGNATURES

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

Axsome Therapeutics, Inc.

Dated: September 28, 2018

By: /s/ Herriot Tabuteau, M.D.

Name: Herriot Tabuteau, M.D.

Title: President and Chief Executive Officer

September 28, 2018

Axsome Therapeutics, Inc.
25 Broadway, 9th Floor
New York, New York 10004

RE: Axsome Therapeutics, Inc. Registration Statement on Form S-3 (File No. 333-214859)

Ladies and Gentlemen:

We have acted as counsel to Axsome Therapeutics, Inc., a Delaware corporation (the “Company”), in connection with its registration statement on Form S-3 (File No. 333-214859) (the “Registration Statement”), filed with the Securities and Exchange Commission (the “SEC”) under the Securities Act of 1933, as amended (the “Act”), relating to the proposed public offering of 2,966,667 shares (the “Shares”) of the Company’s common stock, par value \$0.0001 per share (“Common Stock”), all of which are to be sold pursuant to the Purchase Agreement among the Company and the purchasers identified on the signature pages thereto (the “Purchase Agreement”), as set forth in the base prospectus, dated December 1, 2016 (as amended, the “Base Prospectus”), which forms a part of the Registration Statement, as supplemented by the prospectus supplement, dated September 27, 2018 (together with the Base Prospectus, the “Prospectus”), filed with the SEC pursuant to Rule 424(b) under the Act.

In connection with this opinion letter, we have examined the Registration Statement, the Prospectus and the Purchase Agreement (collectively, the “Transaction Documents”), and originals, or copies certified or otherwise identified to our satisfaction, of the Amended and Restated Certificate of Incorporation and the Amended and Restated Bylaws of the Company, and such other documents, records and other instruments as we have deemed appropriate for purposes of the opinion set forth herein.

We have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of the documents submitted to us as originals, the conformity with the originals of all documents submitted to us as certified, facsimile or photostatic copies and the authenticity of the originals of all documents submitted to us as copies.

Based upon, subject to and limited by the foregoing, we are of the opinion that the Shares have been duly authorized by the Company and, when issued and sold by the Company and delivered by the Company against receipt of the purchase price therefor, in the manner contemplated by the Transaction Documents, will be validly issued, fully paid and non-assessable.

The opinions expressed herein are limited to Delaware General Corporation Law.

We hereby consent to the use of this opinion as Exhibit 5.1 to the Registration Statement and to the reference to us under the caption “Legal Matters” in the prospectus included in the

Registration Statement. In giving such consent, we do not hereby admit that we are acting within the category of persons whose consent is required under Section 7 of the Act or the rules or regulations of the SEC thereunder.

Very truly yours,

/s/ DLA Piper LLP (US)

PURCHASE AGREEMENT

PURCHASE AGREEMENT (the "Agreement"), dated as of September 27, 2018, by and among **AXSOME THERAPEUTICS, INC.**, a Delaware corporation (the "Company"), and the investors identified on Schedule I hereto (each, an "Investor" and collectively, the "Investors").

WHEREAS:

Subject to the terms and conditions set forth in this Agreement, the Company wishes to sell to the Investors, and the Investors wish to buy from the Company, the shares listed on Schedule I hereto (the "Purchase Shares") of the Company's common stock, \$0.0001 par value per share (the "Common Stock"), at a price of \$3.00 per Purchase Share, for a minimum aggregate purchase price of \$3 million and no more than \$10 million.

NOW THEREFORE, in consideration of the mutual covenants contained in this Agreement, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Company and the Investors hereby agree as follows:

1. CERTAIN DEFINITIONS.

For purposes of this Agreement, the following terms shall have the following meanings:

- (a) "Bankruptcy Law" means Title 11, U.S. Code, or any similar federal or state law for the relief of debtors.
 - (b) "Base Prospectus" means the Company's final base prospectus, dated December 16, 2016, a preliminary form of which is included in the Registration Statement, including the documents incorporated by reference therein.
 - (c) "Business Day" means any day on which the Principal Market is open for trading, including any day on which the Principal Market is open for trading for a period of time less than the customary time.
 - (d) "Confidential Information" means any information disclosed by either party to the other party, either directly or indirectly, in writing, orally or by inspection of tangible objects (including, without limitation, documents, prototypes, samples, plant and equipment), which is designated as "Confidential," "Proprietary" or some similar designation. Information communicated orally shall be considered Confidential Information if such information is confirmed in writing as being Confidential Information within ten (10) Business Days after the initial disclosure. Confidential Information may also include information disclosed to a disclosing party by third parties. Confidential Information shall not, however, include any information which (i) was publicly known and made generally available in the public domain prior to the time of disclosure by the disclosing party; (ii) becomes publicly known and made generally available after disclosure by the disclosing party to the receiving party through no action or inaction of the receiving party; (iii) is already in the possession of the receiving party without confidential restriction at the time of disclosure by the disclosing party as shown by the receiving party's files and records immediately prior to the time of disclosure; (iv) is obtained by the receiving party from a third party without a breach of such third party's obligations of confidentiality; (v) is independently developed by the receiving party without use of or reference to the disclosing party's Confidential Information, as shown by documents and other competent evidence in the receiving party's possession; or (vi) is required by law to be disclosed by the receiving party, provided that the receiving party gives the disclosing party prompt written notice of
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such requirement prior to such disclosure and assistance in obtaining an order protecting the information from public disclosure.

- (e) “Custodian” means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.
- (f) “DTC” means The Depository Trust Company, or any successor performing substantially the same function for the Company.
- (g) “DWAC Shares” means shares of Common Stock that are (i) issued in electronic form, (ii) freely tradable and transferable and without restriction on resale and (iii) timely credited by the Company to the Investor or its designee’s specified Deposit/Withdrawal at Custodian (DWAC) account with DTC under its Fast Automated Securities Transfer (FAST) Program or any similar program hereafter adopted by DTC performing substantially the same function.
- (h) “Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.
- (i) “Initial Prospectus Supplement” means the prospectus supplement of the Company dated September 27, 2018 relating to the Purchase Shares, including the accompanying Base Prospectus, to be prepared and filed by the Company with the SEC pursuant to Rule 424(b)(5) under the Securities Act and in accordance with Section 5(a) hereof, together with all documents and information incorporated therein by reference.
- (j) “Material Adverse Effect” means any material adverse effect on (i) the enforceability of any Transaction Document, (ii) the results of operations, assets, business or financial condition of the Company and its Subsidiaries, taken as a whole, other than any material adverse effect that resulted primarily from (A) any change in the United States or foreign economies or securities or financial markets in general that does not have a disproportionate effect on the Company and its Subsidiaries, taken as a whole, (B) any change that generally affects the industry in which the Company and its Subsidiaries operate that does not have a disproportionate effect on the Company and its Subsidiaries, taken as a whole, (C) any change arising in connection with earthquakes, hostilities, acts of war, sabotage or terrorism or military actions or any escalation or material worsening of any such hostilities, acts of war, sabotage or terrorism or military actions existing as of the date hereof, (D) any action taken by the Investor, its affiliates or its successors and assigns with respect to the transactions contemplated by this Agreement, (E) the effect of any change in applicable laws or accounting rules that does not have a disproportionate effect on the Company and its Subsidiaries, taken as a whole, (F) any change resulting from compliance with terms of this Agreement or the consummation of the transactions contemplated by this Agreement, or (G) any change, in and of itself, in the Company’s stock price or trading volume from and after the date hereof (provided, however, that the facts and circumstances underlying any such change may, except as may be provided in subsections (A), (B), (C) (D), (E) or (F) of this definition, be considered in determining whether a Company Material Adverse Effect has occurred), or (iii) the Company’s ability to perform in any material respect on a timely basis its obligations under any Transaction Document to be performed as of the date of determination.
- (k) “Person” means an individual or entity including but not limited to any limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization and a government or any department or agency thereof.
- (l) “Principal Market” means The Nasdaq Global Market (or any nationally recognized successor thereto); provided, however, that in the event the Company’s Common Stock is ever listed or

traded on The Nasdaq Capital Market, The Nasdaq Global Select Market, the New York Stock Exchange, the NYSE American, the NYSE Arca, the OTC Bulletin Board, or the OTCQX or the OTCQB operated by the OTC Markets Group, Inc. (or any nationally recognized successor to any of the foregoing), then the "Principal Market" shall mean such other market or exchange on which the Company's Common Stock is then listed or traded.

(m) "Prospectus" means the Base Prospectus, as supplemented by any Prospectus Supplement (including the Initial Prospectus Supplement), including the documents and information incorporated by reference therein.

(n) "Prospectus Supplement" means any prospectus supplement to the Base Prospectus (including the Initial Prospectus Supplement) filed with the SEC pursuant to Rule 424(b) under the Securities Act in connection with the transactions contemplated by this Agreement, including the documents and information incorporated by reference therein.

(o) "Registration Statement" means the effective registration statement on Form S-3 (Commission File No. 333-214859) filed by the Company with the SEC pursuant to the Securities Act for the registration of shares of its Common Stock, including the Purchase Shares, and certain other securities, as such Registration Statement has been or may be amended and supplemented from time to time, including all documents filed as part thereof or incorporated by reference therein, and including all information deemed to be a part thereof at the time of effectiveness pursuant to Rule 430B of the Securities Act, including any comparable successor registration statement filed by the Company with the SEC pursuant to the Securities Act for the registration of shares of its Common Stock, including the Purchase Shares.

(p) "SEC" means the U.S. Securities and Exchange Commission.

(q) "Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

(r) "Subsidiary" means any Person the Company wholly-owns or controls, or in which the Company, directly or indirectly, owns a majority of the voting stock or similar voting interest, in each case that would be disclosable pursuant to Item 601(b)(21) of Regulation S-K promulgated under the Securities Act.

(s) "Transaction Documents" means, collectively, this Agreement and the schedules and exhibits hereto, and each of the other agreements, documents, certificates and instruments entered into or furnished by the parties hereto in connection with the transactions contemplated hereby and thereby.

(t) "Transfer Agent" means American Stock Transfer & Trust Company, LLC, or such other Person who is then serving as the transfer agent for the Company in respect of the Common Stock.

2. PURCHASE OF COMMON STOCK.

Subject to the terms and conditions set forth in this Agreement, the Company desires to sell to the Investor, and the Investor desires to purchase from the Company, the Purchase Shares as follows:

(a) Purchase of Common Stock. Upon the satisfaction of the conditions set forth in Sections 7 and 8 hereof (the "Closing" and the date of satisfaction of such conditions the "Closing Date"), the Investors shall purchase the number of Purchase Shares set forth opposite their respective names on Schedule I hereto, at a price of \$3.00 per Purchase Share.

(b) Payment of Purchase Price. Each of the Investors shall pay the amount of cash for the number of Purchase Shares it is purchasing hereunder set forth opposite its name on Schedule I hereto to the Company as full payment for all of the Purchase Shares to be purchased by it hereunder by wire transfer of immediately available funds on the same Business Day that such Investor receives verbal or written confirmation of delivery from the Transfer Agent of all of the Purchase Shares being purchased by such Investor as DWAC Shares, if all of such Purchase Shares are so received by such Investor before 1:00 p.m., Eastern time, or, if any of such Purchase Shares are received by such Investor after 1:00 p.m., Eastern time, the next Business Day. All payments made under this Agreement shall be made in lawful money of the United States of America or wire transfer of immediately available funds to the account designated by the Company by written notice to each of the Investors prior to the date of this Agreement.

(c) Beneficial Ownership Limitation. Notwithstanding anything to the contrary contained in this Agreement, the Company shall not issue or sell, and none of the Investors shall purchase or acquire, any shares of Common Stock under this Agreement which, when aggregated with all other shares of Common Stock then beneficially owned by such Investor and its respective affiliates (as calculated pursuant to Section 13(d) of the Exchange Act and Rule 13d-3 promulgated thereunder) would result in the beneficial ownership by such Investor and its respective affiliates of more than 4.99% of the then issued and outstanding shares of Common Stock (the "Beneficial Ownership Limitation").

3. INVESTORS' REPRESENTATIONS AND WARRANTIES.

Each Investor, severally and only with respect to itself and not jointly, represents and warrants to the Company that as of the date hereof and as of the Closing Date:

(a) Organization, Authority. Such Investor is an entity duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization, with the requisite power and authority to enter into and to consummate the transactions contemplated by this Agreement and otherwise to carry out its obligations hereunder and thereunder.

(c) Accredited Investor Status. Such Investor is an "accredited investor" as that term is defined in Rule 501(a)(3) of Regulation D promulgated under the Securities Act.

(d) Information. Such Investor understands that its investment in the Purchase Shares involves a high degree of risk. Such Investor (i) is able to bear the economic risk of an investment in the Purchase Shares including a total loss thereof, (ii) has such knowledge and experience in financial and business matters that it is capable of evaluating the merits and risks of the proposed investment in the Purchase Shares and (iii) has had an opportunity to ask questions of and receive answers from the officers of the Company concerning the financial condition and business of the Company and others matters related to an investment in the Purchase Shares. Neither such inquiries nor any other due diligence investigations conducted by such Investor or its representatives shall modify, amend or affect such Investor's right to rely on the Company's representations and warranties contained in Section 4 below. Such Investor has sought such accounting, legal and tax advice from its own independent advisors as it has considered necessary to make an informed investment decision with respect to its acquisition of the Purchase Shares.

(e) No Governmental Review. Such Investor understands that no U.S. federal or state agency or any other government or governmental agency has passed on or made any recommendation or endorsement of the Purchase Shares or the fairness or suitability of an investment in the Purchase Shares nor have such authorities passed upon or endorsed the merits of the offering of the Purchase Shares.

(f) Validity: Enforcement. This Agreement has been duly and validly authorized, executed and delivered on behalf of such Investor and is a valid and binding agreement of such Investor enforceable

against the Investor in accordance with its terms, subject as to enforceability to general principles of equity and to applicable bankruptcy, insolvency, reorganization, moratorium, liquidation and other similar laws relating to, or affecting generally, the enforcement of applicable creditors' rights and remedies.

(g) Residency. Such Investor is a resident of the state set forth opposite such Investor's name on Schedule I hereto.

(h) No Short Selling. Such Investor represents and warrants to the Company that (i) at no time since the time such Investor was first contacted by the Company regarding the transactions contemplated hereby has such Investor or any of its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any (A) "short sale" (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of the Common Stock or (B) hedging transaction, which establishes a net short position with respect to the Common Stock, and (ii) neither such Investor nor any of its agents, representatives or affiliates shall engage in any of the aforementioned transactions in clause (i) hereof during the period beginning on the date of this Agreement and ending on the Closing Date.

(i) No additional Shares. Except as otherwise disclosed in writing by each Investor, as applicable, to the Company, none of the Investors beneficially own any securities of the Company prior to the date of this Agreement.

4. REPRESENTATIONS AND WARRANTIES OF THE COMPANY.

The Company represents and warrants to the Investors that, except as set forth in the disclosure schedules attached hereto, which exceptions shall be deemed to be a part of the representations and warranties made hereunder, as of the date hereof and as of the Closing Date:

(a) Organization and Qualification. The Company and each of its Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite corporate power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any of its Subsidiaries is in violation or default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents. Each of the Company and its Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not have or reasonably be expected to result in a Material Adverse Effect and no proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification. The Company has no Subsidiaries except as set forth on Exhibit 21.1 to the Company's Annual Report on Form 10-K for the year ended December 31, 2017.

(b) Authorization; Enforcement; Validity. (i) The Company has the requisite corporate power and authority to enter into and perform its obligations under this Agreement and each of the other Transaction Documents, and to issue the Purchase Shares in accordance with the terms hereof and thereof, (ii) the execution and delivery of this Agreement and each of the other Transaction Documents by the Company and the consummation by it of the transactions contemplated hereby and thereby, including without limitation, the issuance of the Purchase Shares pursuant to this Agreement, have been duly authorized by the Company's Board of Directors and no further consent or authorization is required by the Company, its Board of Directors or its stockholders, (iii) this Agreement has been and each of the other Transaction Document shall be on the Closing Date, duly executed and delivered by the Company and (iv) this Agreement constitutes, and each other Transaction Document upon its execution on behalf of the Company on the Closing Date, shall on the Closing Date constitute, the valid and binding obligations of

the Company enforceable against the Company in accordance with their terms, except as such enforceability may be limited by general principles of equity or applicable bankruptcy, insolvency, reorganization, moratorium, liquidation or similar laws relating to, or affecting generally, the enforcement of creditors' rights and remedies. The Board of Directors of the Company has approved the resolutions (the "Signing Resolutions") substantially in the form provided to the Investor to authorize this Agreement, the other Transaction Documents and the transactions contemplated hereby and thereby. The Signing Resolutions are valid, in full force and effect and have not been modified or supplemented in any respect. The Company has delivered to the Investor a true and correct copy of minutes of a meeting of the Board of Directors of the Company at which the Signing Resolutions were duly adopted by the Board of Directors or a unanimous written consent adopting the Signing Resolutions executed by all of the members of the Board of Directors of the Company. Except as set forth in this Agreement, no other approvals or consents of the Company's Board of Directors, any authorized committee thereof, and/or stockholders is necessary under applicable laws and the Company's Certificate of incorporation and/or Bylaws to authorize the execution and delivery of this Agreement or any of the transactions contemplated hereby, including, but not limited to, the issuance of the Purchase Shares.

(c) Capitalization. As of the date hereof, the authorized capital stock of the Company is set forth in the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018. Except as disclosed in the SEC Documents (as defined below), (i) no shares of the Company's capital stock are subject to preemptive rights or any other similar rights or any liens or encumbrances suffered or permitted by the Company, (ii) there are no outstanding debt securities, (iii) there are no outstanding options, warrants, scrip, rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities or rights convertible into, any shares of capital stock of the Company or any of its Subsidiaries, or contracts, commitments, understandings or arrangements by which the Company or any of its Subsidiaries is or may become bound to issue additional shares of capital stock of the Company or any of its Subsidiaries or options, warrants, scrip, rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities or rights convertible into, any shares of capital stock of the Company or any of its Subsidiaries, (iv) there are no agreements or arrangements under which the Company or any of its Subsidiaries is obligated to register the sale of any of their securities under the Securities Act, (v) there are no outstanding securities or instruments of the Company or any of its Subsidiaries which contain any redemption or similar provisions, and there are no contracts, commitments, understandings or arrangements by which the Company or any of its Subsidiaries is or may become bound to redeem a security of the Company or any of its Subsidiaries, (vi) there are no securities or instruments containing anti-dilution or similar provisions that will be triggered by the issuance of the Purchase Shares as described in this Agreement and (vii) the Company does not have any stock appreciation rights or "phantom stock" plans or agreements or any similar plan or agreement. The Company has furnished to the Investor true and correct copies of the Company's certificate of incorporation, as amended and as in effect on the date hereof (the "Certificate of incorporation"), and the Company's Bylaws, as amended and as in effect on the date hereof (the "Bylaws"), and summaries of the material terms of all securities convertible into or exercisable for Common Stock, if any, and copies of any documents containing the material rights of the holders thereof in respect thereto that are not disclosed in the SEC Documents.

(d) Issuance of Purchase Shares. Upon issuance and payment therefor in accordance with the terms and conditions of this Agreement, the Purchase Shares shall be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens, charges, restrictions, rights of first refusal and preemptive rights with respect to the issue thereof, and will be issued in compliance with all federal and state securities laws, with the holders being entitled to all rights accorded to a holder of shares of Common Stock. The Purchase Shares are being issued pursuant to the Registration Statement and the issuance of the Purchase Shares has been registered by the Company pursuant to the Securities Act. Upon receipt of the Purchase Shares, the Investor will have good and marketable title to such Purchase Shares and such Purchase Shares will be immediately freely tradable.

(e) No Conflicts. The execution, delivery and performance of the Transaction Documents by the Company and the consummation by the Company of the transactions contemplated hereby and thereby (including, without limitation, the issuance of the Purchase Shares) will not (i) result in a violation of the Certificate of incorporation, any Certificate of Designations, Preferences and Rights of any outstanding series of preferred stock of the Company or the Bylaws or (ii) conflict with, or constitute a default (or an event which with notice or lapse of time or both would become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture or instrument to which the Company or any of its Subsidiaries is a party, or result in a violation of any law, rule, regulation, order, judgment or decree (including federal and state securities laws and regulations and the rules and regulations of the Principal Market applicable to the Company or any of its Subsidiaries) or by which any property or asset of the Company or any of its Subsidiaries is bound or affected, except in the case of conflicts, defaults, terminations, amendments, accelerations, cancellations and violations under clause (ii), which could not reasonably be expected to result in a Material Adverse Effect. Neither the Company nor its Subsidiaries is in violation of any term of or in default under its Certificate of incorporation, any Certificate of Designation, Preferences and Rights of any outstanding series of preferred stock of the Company or Bylaws or their organizational charter or bylaws, respectively. Neither the Company nor any of its Subsidiaries is in violation of any term of or is in default under any material contract, agreement, mortgage, indebtedness, indenture, instrument, judgment, decree or order or any statute, rule or regulation applicable to the Company or its Subsidiaries, except for possible conflicts, defaults, terminations or amendments that could not reasonably be expected to have a Material Adverse Effect. The business of the Company and its Subsidiaries is not being conducted, and shall not be conducted, in violation of any law, ordinance or regulation of any governmental entity, except for possible violations, the sanctions for which either individually or in the aggregate could not reasonably be expected to have a Material Adverse Effect. Except as required under the Securities Act or applicable state securities laws and the rules and regulations of the Principal Market, the Company is not required to obtain any consent, authorization or order of, or make any filing or registration with, any court or governmental agency or any regulatory or self-regulatory agency in order for it to execute, deliver or perform any of its obligations under or contemplated by the Transaction Documents in accordance with the terms hereof or thereof. Except as set forth elsewhere in this Agreement, all consents, authorizations, orders, filings and registrations which the Company is required to obtain pursuant to the preceding sentence shall be obtained or effected on or prior to the Closing Date. Except as disclosed in the SEC Documents, since one year prior to the date hereof, the Company has not received nor delivered any notices or correspondence from or to the Principal Market, other than notices with respect to listing of additional shares of Common Stock and other routine correspondence. Except as disclosed in the SEC Documents, the Principal Market has not commenced any delisting proceedings against the Company.

(f) SEC Documents; Financial Statements. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the twelve months preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, being collectively referred to herein as the “SEC Documents”) on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Documents prior to the expiration of any such extension. As of their respective dates and to the Company’s knowledge, the SEC Documents complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable. None of the SEC Documents, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Documents comply in all material respects with applicable accounting requirements and the rules and regulations of the SEC with respect thereto as in effect at the

time of filing. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved (“GAAP”), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments. Except as set forth in the SEC Documents, the Company has received no notices or correspondence from the SEC for the one year preceding the date hereof. To the Company’s knowledge, the SEC has not commenced any enforcement proceedings against the Company.

(g) Absence of Certain Changes. Except as disclosed in the SEC Documents, since December 31, 2017, there has been no material adverse change in the business, properties, operations, financial condition or results of operations of the Company or its Subsidiaries. The Company has not taken any steps, and does not currently expect to take any steps, to seek protection pursuant to any Bankruptcy Law nor does the Company or any of its Subsidiaries have any knowledge or reason to believe that its creditors intend to initiate involuntary bankruptcy or insolvency proceedings. The Company is financially solvent and is generally able to pay its debts as they become due.

(h) Absence of Litigation. There is no action, suit, proceeding, inquiry or investigation before or by any court, public board, government agency, self-regulatory organization or body pending or, to the knowledge of the Company or any of its Subsidiaries, threatened against or affecting the Company, the Common Stock or any of the Company’s or its Subsidiaries’ officers or directors in their capacities as such, which could reasonably be expected to have a Material Adverse Effect.

(i) Acknowledgment Regarding Investors’ Status. The Company acknowledges and agrees that each of the Investors are acting solely in the capacity of an arm’s length purchaser with respect to the Transaction Documents and the transactions contemplated hereby and thereby. The Company further acknowledges that none of the Investors are acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to the Transaction Documents and the transactions contemplated hereby and thereby and any advice given by any of the Investors or any of their respective representatives or agents in connection with the Transaction Documents and the transactions contemplated hereby and thereby is merely incidental to such Investor’s purchase of the Purchase Shares. The Company further represents to each of the Investors that the Company’s decision to enter into the Transaction Documents has been based solely on the independent evaluation by the Company and its representatives and advisors.

(j) No Integrated Offering. Neither the Company, nor or any of its affiliates, nor any Person acting on their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Purchase Shares to be integrated with prior offerings by the Company in a manner that would require stockholder approval pursuant to the rules of the Principal Market on which any of the securities of the Company are listed or designated. The issuance and sale of the Purchase Shares hereunder does not contravene the rules and regulations of the Principal Market.

(k) Intellectual Property Rights. The Company and its Subsidiaries own or possess adequate rights or licenses to use all material trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, governmental authorizations, trade secrets and rights necessary to conduct their respective businesses as now conducted. None of the Company’s material trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, government authorizations, trade secrets or other intellectual property rights have expired or terminated, or, by the terms and conditions thereof, could expire or terminate within two years from the date of this Agreement. Except as disclosed

in the SEC Documents, the Company and its Subsidiaries do not have any knowledge of any infringement by the Company or its Subsidiaries of any material trademark, trade name rights, patents, patent rights, copyrights, inventions, licenses, service names, service marks, service mark registrations, trade secret or other similar rights of others, or of any such development of similar or identical trade secrets or technical information by others, and there is no claim, action or proceeding being made or brought against, or to the Company's knowledge, being threatened against, the Company or its Subsidiaries regarding trademark, trade name, patents, patent rights, invention, copyright, license, service names, service marks, service mark registrations, trade secret or other infringement, which could reasonably be expected to have a Material Adverse Effect.

(l) Environmental Laws. The Company and its Subsidiaries (i) are in compliance with any and all applicable foreign, federal, state and local laws and regulations relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants ("Environmental Laws"), (ii) have received all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses and (iii) are in compliance with all terms and conditions of any such permit, license or approval, except where, in each of the three foregoing clauses, the failure to so comply could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(m) Title. Except as set forth in the SEC Documents, the Company and its Subsidiaries have good and marketable title in fee simple to all real property owned by them and good and marketable title in all personal property owned by them that is material to the business of the Company and its Subsidiaries, in each case free and clear of all liens, encumbrances and defects ("Liens") and, except for Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and its Subsidiaries and Liens for the payment of federal, state or other taxes, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company and its Subsidiaries are held by them under valid, subsisting and enforceable leases with which the Company and its Subsidiaries are in compliance with such exceptions as are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company and its Subsidiaries.

(n) Insurance. The Company and each of its Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as management of the Company believes to be prudent and customary in the businesses in which the Company and its Subsidiaries are engaged. Neither the Company nor any such Subsidiary has been refused any insurance coverage sought or applied for and neither the Company nor any such Subsidiary has 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 materially and adversely affect the condition, financial or otherwise, or the earnings, business or operations of the Company and its Subsidiaries, taken as a whole.

(o) Regulatory Permits. The Company and its Subsidiaries possess all material certificates, authorizations and permits issued by the appropriate federal, state or foreign regulatory authorities necessary to conduct their respective businesses, and neither the Company nor any such Subsidiary has received any notice of proceedings relating to the revocation or modification of any such certificate, authorization or permit.

(p) Tax Status. The Company and each of its Subsidiaries has made or filed all federal and state income and all other material tax returns, reports and declarations required by any jurisdiction to which it is subject (unless and only to the extent that the Company and each of its Subsidiaries has set aside on its books provisions reasonably adequate for the payment of all unpaid and unreported taxes) and has paid all

taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations, except those being contested in good faith and has set aside on its books provision reasonably adequate for the payment of all taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company know of no basis for any such claim.

(q) Transactions With Affiliates. Except as set forth in the SEC Documents, none of the officers or directors of the Company and, to the knowledge of the Company, none of the employees of the Company is presently a party to any transaction with the Company or any Subsidiary (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee or partner, in each case in excess of \$120,000 other than for (i) payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company and (iii) other employee benefits, including stock option agreements under any stock option plan of the Company.

(r) Application of Takeover Protections. The Company and its board of directors have taken or will take prior to the Closing Date all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Certificate of Incorporation or the laws of the state of its incorporation which is or could become applicable to any of the Investors as a result of the transactions contemplated by this Agreement, including, without limitation, the Company's issuance of the Purchase Shares and the Investors' ownership of the Purchase Shares.

(s) Disclosure. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents that will be timely publicly disclosed by the Company, the Company confirms that neither it nor any other Person acting on its behalf has provided any of the Investor's or its agents or counsel with any information that it believes constitutes or might constitute material, non-public information which is not otherwise disclosed in the Registration Statement or any Prospectus Supplement. The Company understands and confirms that each of the Investors will rely on the foregoing representation in effecting purchases and sales of securities of the Company. All of the disclosure furnished by or on behalf of the Company to the Investor regarding the Company, its business and the transactions contemplated hereby, including the disclosure schedules to this Agreement, is true and correct and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. The press releases disseminated by the Company during the twelve months preceding the date of this Agreement taken as a whole do not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made and when made, not misleading. The Company acknowledges and agrees that none of the Investors makes or has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in Section 3 hereof and, in that case, only with respect to such Investor and not with respect to any other Investor.

(t) Foreign Corrupt Practices. Neither the Company, nor to the knowledge of the Company, any agent or other Person acting on behalf of the Company, has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose

fully any contribution made by the Company (or made by any Person acting on its behalf of which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of the Foreign Corrupt Practices Act of 1977, as amended.

(u) Registration Statement. The Company has prepared and filed with the SEC in accordance with the provisions of the Securities Act the Registration Statement. The Registration Statement was declared effective by order of the SEC on December 16, 2016. The Registration Statement is effective pursuant to the Securities Act and available for the issuance of the Purchase Shares thereunder, and the Company has not received any written notice that the SEC has issued or intends to issue a stop order or other similar order with respect to the Registration Statement or the Prospectus or that the SEC otherwise has (i) suspended or withdrawn the effectiveness of the Registration Statement or (ii) issued any order preventing or suspending the use of the Prospectus or any Prospectus Supplement, in either case, either temporarily or permanently or intends or has threatened in writing to do so. The "Plan of Distribution" section of the Prospectus permits the issuance of the Purchase Shares under the terms of this Agreement. At the time the Registration Statement and any amendments thereto became effective, at the date of this Agreement and at each deemed effective date thereof pursuant to Rule 430B(f)(2) of the Securities Act, the Registration Statement and any amendments thereto complied and will comply in all material respects with the requirements of the Securities Act and did not and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading; and the Base Prospectus and any Prospectus Supplement thereto, at the time such Base Prospectus or such Prospectus Supplement thereto was issued and on the Closing Date, complied and will comply in all material respects with the requirements of the Securities Act and did not and will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading; provided that this representation and warranty does not apply to statements in or omissions from any Prospectus Supplement made in reliance upon and in conformity with information relating to the Investor furnished to the Company in writing by or on behalf of the Investor expressly for use therein. The Company meets all of the requirements for the use of a registration statement on Form S-3 pursuant to the Securities Act for the offering and sale of the Purchase Shares contemplated by this Agreement in reliance on General Instruction I.B.1. of Form S-3, and the SEC has not notified the Company of any objection to the use of the form of the Registration Statement pursuant to Rule 401(g)(1) of the Securities Act. The Company hereby confirms that the issuance of the Purchase Shares to the Investor pursuant to this Agreement would not result in non-compliance with the Securities Act or any of the General Instructions to Form S-3. The Registration Statement, as of its effective date, meets the requirements set forth in Rule 415(a)(1)(x) pursuant to the Securities Act. At the earliest time after the filing of the Registration Statement that the Company or another offering participant made a bona fide offer (within the meaning of Rule 164(h)(2) of the Securities Act) relating to any of the Purchase Shares, the Company was not and is not an Ineligible Issuer (as defined in Rule 405 of the Securities Act). The Company has not distributed any offering material in connection with the offering and sale of any of the Purchase Shares, and, until none of the Investors hold any of the Purchase Shares, shall not distribute any offering material in connection with the offering and sale of any of the Purchase Shares, to or by any of the Investors, in each case, other than the Registration Statement or any amendment thereto, the Prospectus or any Prospectus Supplement required pursuant to applicable law or the Transaction Documents. The Company has not made, and agrees that unless it obtains the prior written consent of each of the Investors it will not make, an offer relating to the Purchase Shares that would constitute a "free writing prospectus" as defined in Rule 405 under the Securities Act. The Company shall comply with the requirements of Rules 164 and 433 under the Securities Act applicable to any such free writing prospectus consented to by each of the Investors, including in respect of timely filing with the SEC, legending and record keeping.

(v) DTC Eligibility. The Company, through the Transfer Agent, currently participates in the DTC Fast Automated Securities Transfer (FAST) Program and the Common Stock can be transferred electronically to third parties via the DTC Fast Automated Securities Transfer (FAST) Program.

(w) Sarbanes-Oxley. The Company is in compliance in all material respects with all provisions of the Sarbanes-Oxley Act of 2002, as amended, which are applicable to it as of the date hereof.

(x) Certain Fees. No brokerage or finder's fees or commissions are or will be payable by the Company to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. None of the Investors shall have any obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section 4(x) that may be due in connection with the transactions contemplated by the Transaction Documents.

(y) Investment Company. The Company is not required to be registered as, and immediately after receipt of payment for the Purchase Shares will not be required to be registered as, an "investment company" within the meaning of the Investment Company Act of 1940, as amended.

(z) Listing and Maintenance Requirements. The Common Stock is registered pursuant to Section 12(b) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock pursuant to the Exchange Act nor has the Company received any notification that the SEC is currently contemplating terminating such registration. Except as disclosed in the SEC Documents, the Company has not, in the twelve (12) months preceding the date hereof, received any notice from any Person to the effect that the Company is not in compliance with the listing or maintenance requirements of the Principal Market. Except as disclosed in the SEC Documents, the Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements.

(aa) Accountants. The Company's accountants are set forth in the SEC Documents and, to the knowledge of the Company, such accountants are an independent registered public accounting firm as required by the Securities Act.

(bb) No Market Manipulation. The Company has not, and to its knowledge no Person acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Purchase Shares, (ii) sold, bid for, purchased, or, paid any compensation for soliciting purchases of, any of the Purchase Shares, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company.

(cc) Shell Company Status. The Company is not currently, and has never been, an issuer identified in Rule 144(i)(1) under the Securities Act.

5. COVENANTS.

(a) Filing of Current Report and Initial Prospectus Supplement. The Company agrees that it shall, prior to 9:30 a.m., New York City Time, on September 28, 2018, file with the SEC a report on Form 8-K relating to the transactions contemplated by, and describing the material terms and conditions of, the Transaction Documents (the "Current Report"). The Company further agrees that it shall, within the time required under Rule 424(b) under the Securities Act, file with the SEC the Initial Prospectus Supplement pursuant to Rule 424(b)(5) under the Securities Act, which Initial Prospectus Supplement shall specifically relate to the Purchase Shares and shall describe the material terms and conditions of the Transaction

Documents, contain information previously omitted at the time of effectiveness of the Registration Statement in reliance on Rule 430B under the Securities Act, and disclose all information relating to the Purchase Shares and the transactions contemplated by the Transaction Documents required to be disclosed in the Registration Statement and the Prospectus as of the date of the Initial Prospectus Supplement, including, without limitation, information required to be disclosed in the section captioned “Plan of Distribution” in the Prospectus. The Company shall provide each Investor with an opportunity to review and comment upon the final pre-filing draft versions of the Current Report and the Initial Prospectus Supplement within a reasonable time prior to their filing with the SEC and the Company shall give reasonable consideration to all such comments. Each Investor shall use its reasonable best efforts to comment upon the final pre-filing draft versions of the Current Report and the Initial Prospectus Supplement within a reasonable time after such Investor receives them from the Company. Each Investor shall furnish to the Company such information regarding itself, the Purchase Shares beneficially owned by it and the intended method of distribution thereof, including any arrangement between such Investor and any other Person relating to the sale or distribution of the Purchase Shares, as shall be reasonably requested by the Company in connection with the preparation and filing of the Current Report and the Initial Prospectus Supplement, and shall otherwise cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of the Current Report and the Initial Prospectus Supplement with the SEC.

(b) Blue Sky. The Company shall take all such action, if any, as is reasonably necessary in order to obtain an exemption for or to register or qualify (i) the offer and sale of the Purchase Shares to the Investors under this Agreement and (ii) any subsequent resale of all Purchase Shares by the Investor, in each case, under applicable securities or “Blue Sky” laws of the states of the United States in such states as is reasonably requested by any of the Investors from time to time, and shall provide evidence of any such action so taken to each of the Investors.

(c) Listing/DTC. The Company shall promptly secure the listing of all of the Purchase Shares to be issued to the Investor hereunder on the Principal Market (subject to official notice of issuance) and upon each other national securities exchange or automated quotation system, if any, upon which the Common Stock is then listed, and shall use commercially reasonable efforts to maintain, so long as any shares of Common Stock shall be so listed, such listing of all such Purchase Shares. The Company shall use commercially reasonable efforts to maintain the listing of the Common Stock on the Principal Market and shall comply in all respects with the Company’s reporting, filing and other obligations under the bylaws or rules and regulations of the Principal Market. Neither the Company nor any of its Subsidiaries shall take any action that would reasonably be expected to result in the delisting or suspension of the Common Stock on the Principal Market. The Company shall promptly, and in no event later than the following Business Day, provide to each of the Investors copies of any notices it receives from any Person regarding the continued eligibility of the Common Stock for listing on the Principal Market; provided, however, that the Company shall not be required to provide the Investors copies of any such notice that the Company reasonably believes constitutes material non-public information and the Company would not be required to publicly disclose such notice in any report or statement filed with the SEC and under the Exchange Act or the Securities Act. The Company shall pay all fees and expenses in connection with satisfying its obligations under this Section 5(c). The Company shall take all action necessary to ensure that its Common Stock can be transferred electronically as DWAC Shares.

(d) Prohibition of Short Sales and Hedging Transactions. During the period specified in Section 3(h), neither the Investors nor any of their respective agents, representatives or affiliates shall in any manner whatsoever enter into or effect, directly or indirectly, any (i) “short sale” (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of the Common Stock or (ii) hedging transaction, which establishes a net short position with respect to the Common Stock.

(e) Reserved.

(f) Non-Public Information. Each party hereto agrees not to disclose any Confidential Information of the other party to any third party and shall not use the Confidential Information for any purpose other than in connection with, or in furtherance of, the transactions contemplated hereby. Each party hereto acknowledges that the Confidential Information shall remain the property of the disclosing party and agrees that it shall take all reasonable measures to protect the secrecy of any Confidential Information disclosed by the other party. The Company confirms that neither it nor any other Person acting on its behalf shall provide any of the Investors or its agents or counsel with any information that constitutes or might constitute material, non-public information, unless a simultaneous public announcement thereof is made by the Company in the manner contemplated by Regulation FD. In the event of a breach of the foregoing covenant by the Company or any Person acting on its behalf (as determined in the reasonable good faith judgment of any Investor), in addition to any other remedy provided herein or in the other Transaction Documents, if such Investor is holding any Purchase Shares at the time of the disclosure of material, non-public information, such Investor shall have the right to make a public disclosure, in the form of a press release, public advertisement or otherwise, of such material, non-public information without the prior approval by the Company; provided such Investor shall have first provided notice to the Company that it believes it has received information that constitutes material, non-public information, the Company shall have at least 24 hours to publicly disclose such material, non-public information prior to any such disclosure by such Investor, the Company shall have failed to demonstrate to such Investor in writing within such time period that such information does not constitute material, non-public information, and the Company shall have failed to publicly disclose such material, non-public information within such time period. None of the Investors shall have any liability to the Company, any of its Subsidiaries, or any of their respective directors, officers, employees, stockholders or agents, for any such disclosure. The Company understands and confirms that each of the Investors shall be relying on the foregoing covenants in effecting transactions in securities of the Company.

(g) Subsequent Equity Issuances. From and after the date of this Agreement until thirty (30) days following the Closing Date, irrespective of any earlier termination of this Agreement, neither the Company nor any Subsidiary shall issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of Common Stock or Common Stock Equivalents (or a combination of units thereof), other than in connection with an Exempt Issuance. Each of the Investors shall be entitled to seek injunctive relief against the Company and its Subsidiaries to preclude any such issuance, which remedy shall be in addition to any right to collect damages, without the necessity of showing economic loss and without any bond or other security being required. "Common Stock Equivalents" means any securities of the Company or its Subsidiaries which entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock. "Exempt Issuance" means the issuance of (i) Purchase Shares to the Investors pursuant to this Agreement, (ii) shares of Common Stock, Common Stock Equivalents or other securities to any of the Investors pursuant to any other existing or future contract, agreement or arrangement between the Company and such Investor, (iii) shares of Common Stock, Common Stock Equivalents or other securities upon the exercise, exchange or conversion of any shares of Common Stock, Common Stock Equivalents or other securities held by any of the Investor at any time, or (iv) up to \$30.0 million of shares of Common Stock through Leerink Partners LLC, as sales agent, pursuant to the Sales Agreement, dated October 20, 2017, by and between the Company and Leerink Partners LLC.

(h) Taxes. The Company shall pay any and all transfer, stamp or similar taxes that may be payable with respect to the issuance and delivery of any shares of Common Stock to the Investor made under this Agreement.

(i) Securities Law Compliance. The Company shall use its reasonable best efforts to keep the Registration Statement effective pursuant to Rule 415 promulgated under the Securities Act, and to keep the Registration Statement and the Prospectus current and available for issuances and sales of all of the Purchase Shares by the Company to the Investors, and for the resale of all the Purchase Shares by the Investors, at all times until the date on which the Investor shall have sold all the Purchase Shares (the "Registration Period"). Without limiting the generality of the foregoing, during the Registration Period, the Company shall (a) take all action necessary to cause the Common Stock to continue to be registered as a class of securities under Sections 12(g) or 12(b) of the Exchange Act, shall comply with its reporting and filing obligations under the Exchange Act, and shall not take any action or file any document (whether or not permitted by the Exchange Act) to terminate or suspend such registration or to terminate or suspend its reporting and filing obligations under the Exchange Act, and (b) prepare and file with the SEC, at the Company's expense, such amendments (including, without limitation, post-effective amendments) to the Registration Statement and such Prospectus Supplements pursuant to Rule 424(b) under the Securities Act, in each case, as may be necessary to keep the Registration Statement effective pursuant to Rule 415 promulgated under the Securities Act, and to keep the Registration Statement and the Prospectus current and available for issuances and sales of all of the Purchase Shares by the Company to the Investor, and for the resale of all of the Purchase Shares by the Investors, at all times during the Registration Period (it being hereby acknowledged and agreed that the Company shall prepare and file with the SEC, at the Company's expense, immediately prior to the third anniversary of the initial effective date of the Registration Statement (the "Renewal Date"), a new Registration Statement relating to the Purchase Shares, in a form satisfactory to each of the Investors and its counsel, and the Company shall use its reasonable best efforts to cause such Registration Statement to be declared effective within 180 days after the Renewal Date). Each Investor shall furnish to the Company such information regarding itself, its affiliates, the Purchase Shares beneficially owned by it and the intended method of distribution thereof as shall be reasonably requested by the Company in connection with the preparation and filing of any such amendment to the Registration Statement (or new Registration Statement) or any such Prospectus Supplement, and shall otherwise cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of any such amendment to the Registration Statement (or new Registration Statement) or any such Prospectus Supplement. The Company shall comply with all applicable federal, state and foreign securities laws in connection with the offer, issuance and sale by the Company of the Purchase Shares contemplated by the Transaction Documents. Without limiting the generality of the foregoing, neither the Company nor any of its officers, directors or affiliates will take, directly or indirectly, any action designed or intended to stabilize or manipulate the price of any security of the Company, or which would reasonably be expected to cause or result in, stabilization or manipulation of the price of any security of the Company.

(j) Stop Orders. The Company shall advise each of the Investors promptly (but in no event later than 24 hours) and shall confirm such advice in writing: (i) of the Company's receipt of notice of any request by the SEC for amendment of or a supplement to the Registration Statement, the Prospectus, any Prospectus Supplement or for any additional information; (ii) of the Company's receipt of notice of the issuance by the SEC of any stop order suspending the effectiveness of the Registration Statement or prohibiting or suspending the use of the Prospectus or any Prospectus Supplement, or of the Company's receipt of any notification of the suspension of qualification of the Purchase Shares for offering or sale in any jurisdiction or the initiation or contemplated initiation of any proceeding for such purpose; and (iii) of the Company becoming aware of the happening of any event, which makes any statement of a material fact made in the Registration Statement, the Prospectus or any Prospectus Supplement untrue or which requires the making of any additions to or changes to the statements then made in the Registration Statement, the Prospectus or any Prospectus Supplement in order to state a material fact required by the Securities Act to be stated therein or necessary in order to make the statements then made therein (in the case of the Prospectus or any Prospectus Supplement, in light of the circumstances under which they were made) not misleading, or of the necessity to amend the Registration Statement or supplement the Prospectus or any Prospectus Supplement to comply with the Securities Act or any other law. The Company shall not be

required to disclose to the Investors the substance or specific reasons of any of the events set forth in clauses (i) through (iii) of the immediately preceding sentence, but rather, shall only be required to disclose that the event has occurred. If at any time the SEC shall issue any stop order suspending the effectiveness of the Registration Statement or prohibiting or suspending the use of the Prospectus or any Prospectus Supplement, the Company shall use its reasonable best efforts to obtain the withdrawal of such order at the earliest possible time. The Company shall furnish to each of the Investors, without charge, a copy of any correspondence from the SEC or the staff of the SEC to the Company or its representatives relating to the Registration Statement or the Prospectus, as the case may be.

(k) Amendments to Registration Statement; Prospectus Supplements. Except as provided in this Agreement and other than periodic and current reports required to be filed pursuant to the Exchange Act, the Company shall not file with the SEC any amendment to the Registration Statement or any supplement to the Base Prospectus that refers to any of the Investors, the Purchase Shares, the Transaction Documents or the transactions contemplated thereby (including, without limitation, any Prospectus Supplement filed in connection with the transactions contemplated by the Transaction Documents), in each case with respect to which (a) such Investor shall not previously have been advised and afforded the opportunity to review and comment thereon at least two (2) Business Days prior to filing with the SEC, as the case may be, (b) the Company shall not have given due consideration to any comments thereon received from such Investor or its counsel, or (c) such Investor shall reasonably object, unless the Company reasonably has determined that it is necessary to amend the Registration Statement or make any supplement to the Prospectus to comply with the Securities Act or any other applicable law or regulation, in which case the Company shall promptly (but in no event later than 24 hours) so inform such Investor, such Investors shall be provided with a reasonable opportunity to review and comment upon any disclosure referring to such Investor, the Transaction Documents or the transactions contemplated thereby, as applicable, and the Company shall expeditiously furnish to such Investor a copy thereof. In addition, for so long as, in the reasonable opinion of counsel for any of the Investors, a Prospectus is required to be delivered in connection with any acquisition or sale of Purchase Shares by such Investor, the Company shall not file any Prospectus Supplement with respect to the Purchase Shares without furnishing to such Investor as many copies of such Prospectus Supplement, together with the Prospectus, as such Investor may reasonably request.

(l) Prospectus Delivery. The Company consents to the use of the Prospectus (and of each Prospectus Supplement thereto) in accordance with the provisions of the Securities Act and with the securities or "blue sky" laws of the jurisdictions in which the Purchase Shares may be sold by the Investors, in connection with the offering and sale of the Purchase Shares and for such period of time thereafter as a Prospectus is required by the Securities Act to be delivered in connection with sales of the Purchase Shares. The Company will make available to each of the Investors upon request, and thereafter from time to time will furnish to each of the Investors, as many copies of the Prospectus (and each Prospectus Supplement thereto) as such Investor may reasonably request for the purposes contemplated by the Securities Act within the time during which the Prospectus is required by the Securities Act to be delivered in connection with sales of the Purchase Shares. If during such period of time any event shall occur that in the reasonable judgment of the Company and its counsel, or in the reasonable judgment of any Investor and its counsel, is required to be set forth in the Registration Statement, the Prospectus or any Prospectus Supplement or should be set forth therein in order to make the statements made therein (in the case of the Prospectus or any Prospectus Supplement, in light of the circumstances under which they were made) not misleading, or if in the reasonable judgment of the Company and its counsel, or in the reasonable judgment of any of the Investors and its counsel, it is otherwise necessary to amend the Registration Statement or supplement the Prospectus or any Prospectus Supplement to comply with the Securities Act or any other applicable law or regulation, the Company shall forthwith prepare and, subject to Section 5(k) above, file with the SEC an appropriate amendment to the Registration Statement or an appropriate Prospectus Supplement and in each case shall expeditiously furnish to each of the Investors, at the Company's expense, such amendment to the Registration Statement or such Prospectus Supplement, as applicable, as may be necessary to reflect any

such change or to effect such compliance. The Company shall have no obligation to separately advise the Investors of, or deliver copies to the Investors of, the SEC Documents, all of which the Investors shall be deemed to have notice of.

(m) **Integration.** From and after the date of this Agreement, neither the Company, nor any of its affiliates will, and the Company shall use its reasonable best efforts to ensure that no Person acting on any of their behalf will, directly or indirectly, make any offers or sales of any security or solicit any offers to buy any security, under circumstances that would cause this offering of the Purchase Shares to be integrated with other offerings of securities by the Company in a manner that would require stockholder approval pursuant to the rules and regulations of the Principal Market on which any of the securities of the Company are listed or designated, unless stockholder approval is obtained before the closing of such subsequent transaction in accordance with the rules of such Principal Market.

(n) **Use of Proceeds.** The Company will use the net proceeds from the offering of the Purchase Shares as described in the Prospectus.

(o) **Other Transactions.** The Company shall not enter into, announce or recommend to its stockholders any agreement, plan, arrangement or transaction in or of which the terms thereof would restrict, materially delay, conflict with or impair the ability or right of the Company to perform its obligations under any of the Transaction Documents to which it is a party, including, without limitation, the obligation of the Company to deliver the Purchase Shares to the Investors in accordance with the terms of this Agreement. From and after the date of this Agreement until the eighteen (18) month anniversary of the Closing Date, irrespective of any earlier termination of this Agreement, the Company shall not enter into, announce or recommend to its stockholders any agreement, plan, arrangement or transaction constituting or that may be deemed to constitute an “equity line” financing arrangement, whereby the Company may sell Common Stock or Common Stock Equivalents at a future determined price, other than with the Investor identified as the “Lead Investor” on Schedule I hereto (the “**Lead Investor**”). The Lead Investor shall be entitled to seek injunctive relief against the Company and its Subsidiaries to preclude any such agreement, plan, arrangement or transaction, which remedy shall be in addition to any right to collect damages, without the necessity of showing economic loss and without any bond or other security being required.

6. TRANSFER AGENT INSTRUCTIONS.

On the Closing Date, the Company shall issue to the Transfer Agent (and any subsequent transfer agent) irrevocable instructions, in the form heretofore furnished to the Company, to issue the Purchase Shares in accordance with the terms of this Agreement (the “**Irrevocable Transfer Agent Instructions**”). All Purchase Shares to be issued to or for the benefit of the Investors pursuant to this Agreement shall be issued as DWAC Shares. The Company represents and warrants to each of the Investors that no instruction other than the Irrevocable Transfer Agent Instructions referred to in this Section 6 will be given by the Company to the Transfer Agent with respect to the Purchase Shares, and the Purchase Shares shall otherwise be freely transferable on the books and records of the Company. Certificates and any other instruments evidencing the Purchase Shares shall not bear any restrictive or other legend. If any Investor effects a sale, assignment or transfer of the Purchase Shares, the Company shall permit the transfer and shall promptly instruct the Transfer Agent (and any subsequent transfer agent) to issue DWAC Shares in such name and in such denominations as specified by such Investor to effect such sale, transfer or assignment. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Investors. Accordingly, the Company acknowledges that the remedy at law for a breach of its obligations under this Section 6 will be inadequate and agrees, in the event of a breach or threatened breach by the Company of the provisions of this Section 6, that each of the Investors shall be entitled, in addition to all other available

remedies, to an order and/or injunction restraining any breach and requiring immediate issuance and transfer, without the necessity of showing economic loss and without any bond or other security being required. The Company shall cause its counsel to issue the legal opinion referred to in the Irrevocable Transfer Agent Instructions to the Transfer Agent (and any subsequent transfer agent) to the extent required or requested by the Transfer Agent (or any subsequent transfer agent). Any fees (with respect to the Transfer Agent, counsel to the Company or otherwise) associated with the issuance of such opinion shall be borne by the Company.

7. CONDITIONS TO THE COMPANY'S OBLIGATION TO ISSUE AND SELL THE PURCHASE SHARES.

The obligation of the Company hereunder to issue and sell the Purchase Shares to the Investors on the Closing Date is subject to the satisfaction or, where legally permissible, the waiver of each of the following conditions:

- (a) Each of the Investors shall have executed this Agreement and delivered the same to the Company;
- (b) No stop order with respect to the Registration Statement shall be pending or threatened by the SEC; and
- (c) The representations and warranties of the Investors shall be true and correct in all material respects as of the date hereof and as of the Closing Date as though made at that time.

8. CONDITIONS TO THE INVESTORS' SEVERAL AND NOT JOINT OBLIGATION TO PURCHASE THE PURCHASE SHARES.

The several and not joint obligation of each Investor under this Agreement to purchase the number of Purchase Shares set forth opposite its name on Schedule I hereto is subject to the satisfaction or, where legally permissible, the waiver of each of the following conditions:

- (a) The Company shall have executed each of the Transaction Documents to which it is a party and delivered the same to each of the Investors;
- (b) The Common Stock shall be listed or quoted on the Principal Market, trading in the Common Stock shall not have been within the last 365 days suspended by the SEC or the Principal Market, and all Purchase Shares to be issued by the Company to the Investors pursuant to this Agreement shall have been, if applicable, approved for listing or quotation on the Principal Market in accordance with the applicable rules and regulations of the Principal Market, subject only to official notice of issuance;
- (c) Each of the Investors shall have received the opinions of the Company's legal counsel dated as of the Closing Date substantially in the form heretofore agreed by the parties hereto;
- (d) The representations and warranties of the Company shall be true and correct in all material respects (except to the extent that any of such representations and warranties is already qualified as to materiality in Section 4 above, in which case, the portion of such representations and warranties so qualified shall be true and correct without further qualification) as of the date hereof and as of the Closing Date as though made at that time (except for representations and warranties that speak as of a specific date, which shall be true and correct as of such date) and the Company shall have performed, satisfied and complied in all material respects with the covenants, agreements and conditions required by the Transaction Documents to be performed, satisfied or complied with by the Company at or prior to the Closing Date. The Investors

shall have received a certificate, executed by the CEO, President or CFO of the Company, dated as of the Closing Date, to the foregoing effect in the form attached hereto as **Exhibit A**:

(e) The Board of Directors of the Company shall have adopted resolutions in substantially the form previously provided to the Investors, which shall be in full force and effect without any amendment or supplement thereto as of the Closing Date;

(f) The Irrevocable Transfer Agent Instructions shall have been delivered to and acknowledged in writing by the Company and the Company's Transfer Agent;

(g) The Company shall have delivered to the Investors a certificate evidencing the incorporation and good standing of the Company in the State of Delaware issued by the Secretary of State of the State of Delaware as of a date within ten (10) Business Days of the Closing Date;

(h) The Company shall have delivered to the Investors a certified copy of the Certificate of incorporation as certified by the Secretary of State of the State of Delaware within ten (10) Business Days of the Closing Date;

(i) The Company shall have delivered to the Investors a secretary's certificate executed by the Secretary of the Company, dated as of the Closing Date, in the form attached hereto as **Exhibit B**;

(j) The Registration Statement shall be effective and no stop order with respect to the Registration Statement shall be pending or threatened by the SEC. The Company shall have a maximum dollar amount certain of securities, including the Purchase Shares, registered under the Registration Statement which is sufficient to issue to the Investors not less than all of the Purchase Shares to be purchased under the Purchase Agreement. The Current Report and the Initial Prospectus Supplement each shall have been filed with the SEC, as required pursuant to Section 5(a), and copies of the Prospectus shall have been delivered to the Investors in accordance with Section 5(l) hereof. The Prospectus shall be current and available for the issuance and sale of all of the Purchase Shares by the Company to the Investors, and for the resale of all of the Purchase Shares by the Investors. Any other Prospectus Supplements required to have been filed by the Company with the SEC under the Securities Act at or prior to the Closing Date shall have been filed with the SEC within the applicable time periods prescribed for such filings under the Securities Act. All reports, schedules, registrations, forms, statements, information and other documents required to have been filed by the Company with the SEC at or during the 12-month period immediately preceding the Closing Date pursuant to the reporting requirements of the Exchange Act shall have been filed with the SEC within the applicable time periods prescribed for such filings under the Exchange Act, including any applicable extension periods contemplated by the Exchange Act;

(k) The Company shall be eligible to transfer its Common Stock, including all of the Purchase Shares, electronically as DWAC Shares;

(l) All federal, state and local governmental laws, rules and regulations applicable to the transactions contemplated by the Transaction Documents and necessary for the execution, delivery and performance of the Transaction Documents and the consummation of the transactions contemplated thereby in accordance with the terms thereof shall have been complied with, and all consents, authorizations and orders of, and all filings and registrations with, all federal, state and local courts or governmental agencies and all federal, state and local regulatory or self-regulatory agencies necessary for the execution, delivery and performance of the Transaction Documents and the consummation of the transactions contemplated thereby in accordance with the terms thereof shall have been obtained or made, including, without limitation, in each case those required under the Securities Act, the Exchange Act, applicable state securities

or “Blue Sky” laws or applicable rules and regulations of the Principal Market, or otherwise required by the SEC, the Principal Market or any state securities regulators;

(m) No statute, regulation, order, decree, writ, ruling or injunction shall have been enacted, entered, promulgated, threatened or endorsed by any federal, state, local or foreign court or governmental authority of competent jurisdiction which prohibits the consummation of or which would materially modify or delay any of the transactions contemplated by the Transaction Documents;

(n) No action, suit or proceeding before any federal, state, local or foreign arbitrator or any court or governmental authority of competent jurisdiction shall have been commenced or threatened, and no inquiry or investigation by any federal, state, local or foreign governmental authority of competent jurisdiction shall have been commenced or threatened, against the Company, or any of the officers, directors or affiliates of the Company, seeking to restrain, prevent or change the transactions contemplated by the Transaction Documents, or seeking material damages in connection with such transactions;

(o) No Person shall have commenced a proceeding against the Company pursuant to or within the meaning of any Bankruptcy Law;

(p) The Company, pursuant to or within the meaning of any Bankruptcy Law, shall not have (i) commenced a voluntary case, (ii) consented to the entry of an order for relief against it in an involuntary case, (iii) consented to the appointment of a Custodian of it or for all or substantially all of its property, or (iv) made a general assignment for the benefit of its creditors or is generally unable to pay its debts as the same become due; and

(q) A court of competent jurisdiction shall not have entered an order or decree under any Bankruptcy Law that (i) is for relief against the Company in an involuntary case, (ii) appoints a Custodian of the Company or for all or substantially all of its property, or (iii) orders the liquidation of the Company or any Subsidiary.

9. INDEMNIFICATION.

In consideration of the Investors’ execution and delivery of this Agreement and acquiring the Purchase Shares, and in addition to all of the Company’s other obligations under the Transaction Documents to which it is a party, the Company shall defend, protect, indemnify and hold harmless each Investor and all of its affiliates, stockholders, officers, directors and employees and any of the foregoing Person’s agents or other representatives (including, without limitation, those retained in connection with the transactions contemplated by the Transaction Documents) (collectively, the “**Indemnitees**”) from and against any and all actions, causes of action, suits, claims, losses, costs, penalties, fees, liabilities and damages, and expenses in connection therewith (irrespective of whether any such Indemnitee is a party to the action for which indemnification hereunder is sought), and including reasonable attorneys’ fees and disbursements (the “Indemnified Liabilities”), incurred by any Indemnitee as a result of, or arising out of, or relating to: (a) any misrepresentation or breach of any representation or warranty made by the Company in any of the Transaction Documents or any other certificate, instrument or document contemplated hereby or thereby, (b) any breach of any covenant, agreement or obligation of the Company contained in any of the Transaction Documents or any other certificate, instrument or document contemplated hereby or thereby, (c) any cause of action, suit or claim brought or made against such Indemnitee and arising out of or resulting from the execution, delivery, performance or enforcement of any of the Transaction Documents or any other certificate, instrument or document contemplated hereby or thereby, (d) any violation of the Securities Act, the Exchange Act, state securities or “Blue Sky” laws, or the rules and regulations of the Principal Market in connection with the transactions contemplated by the Transaction Documents by the Company or any of its affiliates, officers, directors or employees, (e) any untrue statement or alleged untrue statement of a

material fact contained, or incorporated by reference, in the Registration Statement or any amendment thereto or any omission or alleged omission to state therein, or in any document incorporated by reference therein, a material fact required to be stated therein or necessary to make the statements therein not misleading, or (f) any untrue statement or alleged untrue statement of a material fact contained, or incorporated by reference, in the Prospectus, or any omission or alleged omission to state therein, or in any document incorporated by reference therein, a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading; provided, however, that (I) the indemnity contained in clause (c) of this Section 9 shall not apply to any Indemnified Liabilities which directly and primarily result from the fraud, gross negligence or willful misconduct of an Indemnitee, (II) the indemnity contained in clauses (d), (e) and (f) of this Section 9 shall not apply to any Indemnified Liabilities of an Investor 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 or on behalf of such Investor expressly for use in any Prospectus Supplement (it being hereby acknowledged and agreed that the written information set forth on **Exhibit C** attached hereto with respect to the Lead Investor is the only written information furnished to the Company by or on behalf of the Lead Investor expressly for use in the Initial Prospectus Supplement), if the Prospectus was timely made available by the Company to such Investor pursuant to Section 5(l), (III) the indemnity contained in clauses (d), (e) and (f) of this Section 9 shall not inure to the benefit of an Investor to the extent such Indemnified Liabilities are based on a failure of such Investor to deliver or to cause to be delivered the Prospectus made available by the Company, if such Prospectus was timely made available by the Company pursuant to Section 5(l), and if delivery of the Prospectus by such Investor was required under the Securities Act with respect to the Purchase Shares and such delivery by such Investor would have cured the defect giving rise to such Indemnified Liabilities, and (IV) the indemnity in this Section 9 shall not apply to amounts paid in settlement of any claim if such settlement is effected without the prior written consent of the Company, which consent shall not be unreasonably withheld, conditioned or delayed. To the extent that the foregoing undertaking by the Company may be unenforceable for any reason, the Company shall make the maximum contribution to the payment and satisfaction of each of the Indemnified Liabilities which is permissible under applicable law. Any required indemnification payment for any particular claim shall be made within thirty (30) days from the date an Investor makes a written request for it. A certificate containing reasonable detail as to the amount of such indemnification submitted to the Company by an Investor shall be conclusive evidence, absent manifest error, of the amount due from the Company to such Investor. If any action shall be brought against any Indemnitee in respect of which indemnity may be sought pursuant to this Agreement, such Indemnitee shall promptly notify the Company in writing, and the Company shall have the right to assume the defense thereof with counsel of its own choosing reasonably acceptable to the Indemnitee. Any Indemnitee shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnitee, except to the extent that (i) the employment thereof has been specifically authorized by the Company in writing, (ii) the Company has failed after a reasonable period of time to assume such defense and to employ counsel or (iii) in such action there is, in the reasonable opinion of such separate counsel, a material conflict on any material issue between the position of the Company and the position of such Indemnitee, in which case the Company shall be responsible for the reasonable fees and expenses of no more than one such separate counsel.

10. RESERVED.

11. TERMINATION

This Agreement may be terminated only as follows:

(a) If pursuant to or within the meaning of any Bankruptcy Law, the Company commences a voluntary case or any Person commences a proceeding against the Company, a Custodian is appointed for

the Company or for all or substantially all of its property, or the Company makes a general assignment for the benefit of its creditors, this Agreement shall automatically terminate without any liability or payment to the Company (except as set forth below) without further action or notice by any Person.

(b) In the event that the Closing shall not have occurred on or before October 12, 2018, due to the failure to satisfy the conditions set forth in Sections 7 and 8 above with respect to the Closing, either the Company, on the one hand, or any Investor, on the other hand, shall have the option to terminate this Agreement at the close of business on such date or thereafter without liability of any party to any other party (except as set forth below); provided, however, that the right to terminate this Agreement under this Section 11(b) shall not be available to any party if such party is then in breach of any covenant or agreement contained in this Agreement or any representation or warranty of such party contained in this Agreement fails to be true and correct such that the conditions set forth in Section 7(c) or Section 8(d), as applicable, could not then be satisfied. Any termination of this Agreement pursuant to this Section 11(b) shall be effected by written notice from the Company to each of the Investors, or any Investor to the Company and each of the other Investors, as the case may be, setting forth the basis for the termination hereof.

The representations and warranties and covenants of the Company and the Investors contained in Sections 3, 4, 5, and 6 hereof, the indemnification provisions set forth in Section 9 hereof and the agreements and covenants set forth in Sections 10, 11 and 12, shall survive the Closing and any termination of this Agreement. No termination of this Agreement shall be deemed to release the Company or any Investor from any liability for intentional misrepresentation or willful breach by such party of any of the Transaction Documents to which it is a party.

12. MISCELLANEOUS.

(a) Governing Law; Jurisdiction; Jury Trial. The corporate laws of the State of Delaware shall govern all issues concerning the relative rights of the Company and its stockholders. All other questions concerning the construction, validity, enforcement and interpretation of this Agreement and the other Transaction Documents shall be governed by the internal laws of the State of Illinois, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Illinois or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of Illinois. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the State of Illinois, County of Cook, for the adjudication of any dispute hereunder or under the other Transaction Documents or in connection herewith or therewith, or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof to such party at the address for such notices to it under this Agreement and the other Transaction Documents and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. **EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION HEREWITH OR ARISING OUT OF THIS AGREEMENT OR ANY OF THE OTHER TRANSACTION DOCUMENTS OR ANY TRANSACTION CONTEMPLATED HEREBY OR THEREBY.**

(b) Counterparts. This Agreement may be executed in two or more identical counterparts, all of which shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party; provided that a facsimile signature or

signature delivered by e-mail in a “.pdf” format data file shall be considered due execution and shall be binding upon the signatory thereto with the same force and effect as if the signature were an original signature.

(c) **Headings.** The headings of this Agreement are for convenience of reference and shall not form part of, or affect the interpretation of, this Agreement.

(d) **Severability.** If any provision of this Agreement shall be invalid or unenforceable in any jurisdiction, such invalidity or unenforceability shall not affect the validity or enforceability of the remainder of this Agreement in that jurisdiction or the validity or enforceability of any provision of this Agreement in any other jurisdiction.

(e) **Entire Agreement; Amendment.** This Agreement and the other Transaction Documents supersede all other prior oral or written agreements among the Investors, the Company, their respective affiliates and Persons acting on their behalf with respect to the subject matter hereof, and this Agreement, the other Transaction Documents and the instruments referenced herein contain the entire understanding of the parties with respect to the matters covered herein and therein and, except as specifically set forth herein or therein, neither the Company nor any of the Investors makes any representation, warranty, covenant or undertaking with respect to such matters. The Company acknowledges and agrees that it has not relied on, in any manner whatsoever, any representations or statements, written or oral, other than as expressly set forth in the Transaction Documents. No provision of this Agreement or the other Transaction Documents may be amended other than by a written instrument signed by each of the parties hereto or thereto.

(f) **Notices.** Any notices, consents, waivers or other communications required or permitted to be given under the terms of this Agreement must be in writing and will be deemed to have been delivered: (i) upon receipt when delivered personally; (ii) upon receipt when sent by facsimile or email (provided confirmation of transmission is mechanically or electronically generated and kept on file by the sending party); or (iii) one Business Day after deposit with a nationally recognized overnight delivery service, in each case properly addressed to the party to receive the same. The addresses for such communications shall be:

If to the Company:

Axsome Therapeutics, Inc.
25 Broadway, 9th Floor
New York, New York 10004
Telephone: (212) 332-3241
Facsimile: (212) 320-6270
E-mail: npizzie@axsome.com
Attention: Nick Pizzie, Chief Financial Officer

With a copy to (which shall not constitute notice or service of process):

DLA Piper LLP (US)
51 John F. Kennedy Parkway, Suite 120
Short Hills, New Jersey 07078
Telephone: (973) 307-3004
Facsimile: (973) 520-2551
E-mail: emilio.ragosa@dlapiper.com
Attention: Emilio Ragosa, Esq.

If to an Investor, to its address set forth opposite its name on Schedule I hereto, with copies to such Investor’s representatives as set forth on Schedule I hereto,

With a copy for informational purposes only to (which shall not constitute notice or service of process):

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
666 Third Avenue
New York, NY 10017
Telephone: (212) 692-6267
Facsimile: (212) 983-3115
E-mail: ajmarsico@mintz.com
Attention: Anthony J. Marsico, Esq.

If to the Transfer Agent:

American Stock Transfer & Trust Company, LLC
6201 15th Avenue
Brooklyn, NY 11219
Telephone: 718-921-8300
Facsimile: 718-765-8782
Attention: Ian McKay

or at such other address and/or facsimile number and/or to the attention of such other Person as the recipient party has specified by written notice given to each other party three (3) Business Days prior to the effectiveness of such change. Written confirmation of receipt (A) given by the recipient of such notice, consent, waiver or other communication, (B) mechanically or electronically generated by the sender's facsimile machine or email account containing the time, date, and recipient facsimile number or email address, as applicable, and an image of the first page of such transmission or (C) provided by a nationally recognized overnight delivery service, shall be rebuttable evidence of personal service, receipt by facsimile or email or receipt from a nationally recognized overnight delivery service in accordance with clause (i), (ii) or (iii) above, respectively.

(g) Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and any permitted successors and assigns of the Company. The Company shall not assign this Agreement or any rights or obligations hereunder without the prior written consent of each of the Investors, including by merger or consolidation. None of the Investors may assign its rights or obligations under this Agreement.

(h) No Third Party Beneficiaries. This Agreement is intended for the benefit of the parties hereto and any permitted successors and assigns of the Company and, except as set forth in Section 9, is not for the benefit of, nor may any provision hereof be enforced by, any other Person.

(i) Publicity. The Company shall afford each of the Investors and its counsel with the opportunity to review and comment upon the form and substance of, and shall give reasonable consideration to all such comments from such Investor or its counsel on, any press release, SEC filing or any other public disclosure by or on behalf of the Company relating to such Investor, its purchases hereunder or any aspect of the Purchase Shares, any of the Transaction Documents or the transactions contemplated thereby, not less than 24 hours prior to the issuance, filing or public disclosure thereof. Each Investor must be provided with a final version of any such press release, SEC filing or other public disclosure at least 24 hours prior to any release, filing or use by the Company thereof. The Company agrees and acknowledges that its failure to fully comply with this provision constitutes a Material Adverse Effect. Except as contemplated in Section 5(f) hereof, no Investor shall issue a press release or any other public disclosure regarding this Agreement or the substance hereof without the prior written consent of the Company, which consent shall not be unreasonably withheld, conditioned or delayed.

(j) Further Assurances. Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

(k) No Financial Advisor, Placement Agent, Broker or Finder. The Company represents and warrants to each of the Investors that it has not engaged any financial advisor, placement agent, broker or finder in connection with the transactions contemplated hereby. Each Investor, severally and only with respect to itself and not jointly, represents and warrants to the Company that it has not engaged any financial advisor, placement agent, broker or finder in connection with the transactions contemplated hereby. The Company shall be responsible for the payment of any fees or commissions, if any, of any financial advisor, placement agent, broker or finder relating to or arising out of the transactions contemplated hereby. The Company shall pay, and hold each of the Investors harmless against, any liability, loss or expense (including, without limitation, attorneys' fees and out of pocket expenses) arising in connection with any such claim.

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

(m) Remedies, Other Obligations, Breaches and Injunctive Relief. The Investors' remedies provided in this Agreement, including, without limitation, the Investors' remedies provided in Section 9, shall be cumulative and in addition to all other remedies available to the Investors under this Agreement, at law or in equity (including a decree of specific performance and/or other injunctive relief), no remedy of any of the Investors contained herein shall be deemed a waiver of compliance with the provisions giving rise to such remedy and nothing herein shall limit any Investor's right to pursue actual damages for any failure by the Company to comply with the terms of this Agreement. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Investors and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, any Investor shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

(n) Enforcement Costs. If: (i) this Agreement is placed by any Investor in the hands of an attorney for enforcement or is enforced by any Investor through any legal proceeding; (ii) an attorney is retained to represent any Investor in any bankruptcy, reorganization, receivership or other proceedings affecting creditors' rights and involving a claim under this Agreement; or (iii) an attorney is retained to represent any Investor in any other proceedings whatsoever in connection with this Agreement, then the Company shall pay to such Investor, as incurred by such Investor, all reasonable costs and expenses including attorneys' fees incurred in connection therewith, in addition to all other amounts due hereunder. If this Agreement is placed by the Company in the hands of an attorney for enforcement against an Investor or is enforced by the Company against an Investor through any legal proceeding, then such Investor against whom this Agreement is so enforced shall pay to the Company, as incurred by the Company, all reasonable costs and expenses including reasonable attorneys' fees incurred in connection therewith, in addition to all other amounts due hereunder.

(o) Waivers. No provision of this Agreement may be waived other than in a written instrument signed by the party against whom enforcement of such waiver is sought. No failure or delay in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial

exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege.

(p) Independent Nature of Investors' Obligations and Rights. The obligations of each Investor under the Transaction Documents are several and not joint with the obligations of any other Investor, and no Investor shall be responsible in any way for the performance of the obligations of any other Investor under any Transaction Document. Nothing contained herein or in any other Transaction Document, and no action taken by any Investor pursuant hereto or thereto, shall be deemed to constitute the Investors as, and the Company acknowledges that the Investors do not so constitute, a partnership, an association, a joint venture or any other kind of group or entity, or create a presumption that the Investors are in any way acting in concert or as a group or entity with respect to such obligations or the transactions contemplated by the Transaction Documents or any matters, and the Company acknowledges that the Investors are not acting in concert or as a group, and the Company shall not assert any such claim, with respect to such obligations or the transactions contemplated by the Transaction Documents. The decision of each Investor to purchase Purchase Shares pursuant to the Transaction Documents has been made by such Investor independently of any other Investor. Each Investor acknowledges that no other Investor has acted as agent for such Investor in connection with such Investor making its investment hereunder and that no other Investor will be acting as agent of such Investor in connection with monitoring such Investor's investment in the Purchase Shares or enforcing its rights under the Transaction Documents. The Company and each Investor confirms that each Investor has independently participated with the Company in the negotiation of the transaction contemplated hereby with the advice of its own counsel and advisors. Each Investor shall be entitled to independently protect and enforce its rights, including, without limitation, the rights arising out of this Agreement or out of any other Transaction Documents, and it shall not be necessary for any other Investor to be joined as an additional party in any proceeding for such purpose. The use of a single agreement to effectuate the purchase and sale of the Purchase Shares contemplated hereby was solely in the control of the Company, not the action or decision of any Investor, and was done solely for the convenience of the Company and not because it was required or requested to do so by any Investor. It is expressly understood and agreed that each provision contained in this Agreement and in each other Transaction Document is between the Company and an Investor, solely, and not between the Company and the Investors collectively and not between and among the Investors.

(q) Counsel to Lead Investor. It is expressly understood and agreed by the Company and each of the Investors that Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. has acted as counsel and has rendered legal advice only to the Lead Investor, and not to the Company, any other Investor or any other Person in connection with the transactions contemplated by the Transaction Documents, and that each of the Company and each Investor other than the Lead Investor has relied for such matters on the advice of its own respective legal counsel.

* * * * *

IN WITNESS WHEREOF, the Investors and the Company have caused this Agreement to be duly executed as of the date first written above.

THE COMPANY:

AXSOME THERAPEUTICS, INC.

By: _____
Name: Herriot Tabuteau, M.D.
Title: Chief Executive Officer

INVESTORS:

[NAME]

By: _____
Name:
Title:

[NAME]

By: _____
Name:
Title:

[NAME]

By: _____
Name:
Title:

SCHEDULE I

Investors

Name and Address of Investor	Purchase Shares	Purchase Amount	State of Residence	Copies of Notices to:
\	[]	\$		



Axsome Therapeutics Announces \$8.9 Million Registered Direct Offering

NEW YORK, September 28, 2018 (Globe Newswire) — Axsome Therapeutics, Inc. (NASDAQ: AXSM), a clinical-stage biopharmaceutical company developing novel therapies for the management of central nervous system (CNS) disorders, today announced that it has entered into a definitive purchase agreement with certain existing and other institutional accredited investors to purchase in a registered direct offering 2,966,667 shares of its common stock at a purchase price of \$3.00 per share.

Participating investors include Armistice Capital, Lincoln Park Capital, and Sio Capital Management.

The net proceeds from the offering are expected to be approximately \$8.8 million. Axsome intends to use the net proceeds from this offering for working capital and general corporate purposes.

Axsome believes that the proceeds from this offering will be sufficient to fund the company's anticipated operations, based on its current operating plans, into the first quarter of 2020.

The securities are being offered by Axsome pursuant to a "shelf" registration statement on Form S-3 that was filed and declared effective by the Securities and Exchange Commission ("SEC") and the base prospectus contained therein (File No. 333-214859). The offering of the securities will be made only by means of a prospectus. A prospectus supplement and accompanying base prospectus relating to the securities being offered will be filed with the SEC. Copies of the final prospectus supplement and accompanying base prospectus may be obtained, when available, on the SEC's website at <http://www.sec.gov> or by contacting Axsome Therapeutics, Inc., 25 Broadway, 9th Floor, New York, NY 10004, Attention: Nick Pizzie, Chief Financial Officer, by phone at (646) 844-6270 or email at npizzie@axsome.com.

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

About Axsome Therapeutics, Inc.

Axsome Therapeutics, Inc. is a clinical-stage biopharmaceutical company developing novel therapies for the management of central nervous system (CNS) disorders for which there are limited treatment options. Axsome's product candidate portfolio includes five clinical-stage candidates, AXS-02, AXS-05, AXS-06, AXS-07, and AXS-09. AXS-05 is currently in a Phase 3 trial in treatment resistant depression (TRD), a Phase 2/3 trial in agitation associated with Alzheimer's disease (AD), a Phase 2 trial in Major Depressive Disorder (MDD), and a Phase 2 trial in smoking cessation. AXS-02 is currently in a Phase 3 trial in knee osteoarthritis (OA) associated with bone marrow lesions (BMLs) with an additional Phase 3 trial planned in chronic low back pain (CLBP) associated with Modic changes (MCs). AXS-07 is being developed for the acute treatment of migraine. AXS-06 is being developed for the treatment of osteoarthritis and rheumatoid arthritis and for the reduction of the risk of NSAID-associated gastric ulcers. AXS-02, AXS-05, AXS-06, AXS-07, and AXS-09 are investigational drug products not approved by the FDA. For more information, please visit the Company's website at axsome.com. The Company may occasionally disseminate material, nonpublic information on the company website.

Forward Looking Statements

Certain matters discussed in this press release are "forward-looking statements". We may, in some cases, use terms such as "predicts," "believes," "potential," "continue," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. In particular, the Company's statements regarding trends and potential future results are examples of such forward-looking statements. The forward-looking statements include risks and uncertainties, including, but not limited to, risks associated with market conditions, the satisfaction of customary closing conditions related to the offering, the success, timing and cost of our ongoing clinical trials and anticipated clinical trials for our current product candidates, including statements regarding the timing of initiation and completion of the trials, futility analyses and receipt of interim results; the timing of and our ability to obtain and maintain U.S. Food and Drug Administration or other regulatory authority approval of, or other action with respect

to, our product candidates; the Company's ability to successfully defend its intellectual property or obtain the necessary licenses at a cost acceptable to the Company, if at all; the successful implementation of the Company's research and development programs and collaborations; the success of the Company's license agreements; the acceptance by the market of the Company's product candidates, if approved; and other factors, including general economic conditions and regulatory developments, not within the Company's control. The factors discussed herein could cause actual results and developments to be materially different from those expressed in or implied by such statements. The forward-looking statements are made only as of the date of this press release and the Company undertakes no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstance.

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