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

FORM 8-K

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

Date of Report (date of earliest event reported): December 19, 2018

SOLENO THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-36593
(Commission
File No.)

77-0523891
(IRS Employer
Identification Number)

1235 Radio Road, Suite 110
Redwood City, CA 94065
(Address of principal executive offices)

(650) 213-8444
(Registrant's telephone number, including area code)

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

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

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

Emerging growth company

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

Item 1.01. Entry into a Material Definitive Agreement.

On December 19, 2018, Soleno Therapeutics, Inc. (the "Company") entered into a Securities Purchase Agreement (the "Purchase Agreement") with Abingworth Bioventures VII LP, Oracle Investment Management, entities associated with Jack W. Schuler and Ernest Mario (the Chairman of our Board of Directors), and certain other institutional and accredited investors (the "Investors"), pursuant to which the Company has agreed to issue and sell to the Investors in a private placement (the "Private Placement"), up to 10,272,375 units (the "Units"). The Company expects the Private Placement to close on or about December 21, 2018. Each Unit consists of one (1) share of the Company's common stock, par value \$0.001 per share ("Common Stock"), and a warrant to purchase 0.05 shares of Common Stock (each, a "Warrant" and, collectively, the "Warrants"), at a price per Unit of \$1.60625 (the "Purchase Price") for aggregate gross proceeds of approximately \$16,500,000. The Purchase Price consists of \$1.60 per share of Common Stock, which is equal to the per share closing price of the Common Stock of the Company on December 18, 2018, the date immediately preceding the signing of the Purchase Agreement, and \$0.00625 for each Warrant. The exercise price of the Warrants is \$2.00 per share. The Company expects the net proceeds from the Private Placement to be approximately \$16,146,740, after deducting offering expenses. The Company intends to use the net proceeds from the Private Placement for clinical trial expenses and working capital or other general corporate purposes.

In connection with the Private Placement, the Company will grant registration rights to the Investors, pursuant to which, among other things, the Company will prepare and file with the Securities and Exchange Commission (the "SEC") a registration statement to register for resale the shares of Common Stock sold in the Private Placement and the shares of Common Stock underlying the Warrants. Roth Capital Partners, LLC ("Roth") has acted as the Company's sole placement agent for the Private Placement.

The Purchase Agreement contains customary representations, warranties and covenants made solely for the benefit of the parties to the Purchase Agreement. The Purchase Agreement is incorporated herein by reference, but only to provide information regarding the terms of the Purchase Agreement and not to provide with any other factual information regarding the Company or its business, and should be read in conjunction with the disclosures in the Company's periodic reports and other filings with the SEC.

The foregoing description of the material terms of the Purchase Agreement and the Warrants is qualified in its entirety by reference to the full text of the Purchase Agreement and form of Warrant, which are filed as Exhibit 10.1 and Exhibit 4.1, respectively, to this Current Report on Form 8-K and incorporated herein by reference.

Item 3.02. Unregistered Sales of Equity Securities.

Pursuant to the Private Placement described in Item 1.01 of this Current Report on Form 8-K, which description is incorporated by reference into this Item 3.02 in its entirety, the Company will sell the Shares to an "accredited investor," as that term is defined in the Securities Act of 1933, as amended (the "Securities Act"), in reliance on the exemption from registration afforded by Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D promulgated under the Securities Act and corresponding provisions of state securities or "blue sky" laws. The Investors represented that they are acquiring the Shares for investment only and not with a view towards, or for resale in connection with, the public sale or distribution thereof. Accordingly, the Shares have not been registered under the Securities Act and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the Securities Act and any applicable state securities laws.

Neither this Current Report on Form 8-K nor any exhibit attached hereto is an offer to sell or the solicitation of an offer to buy shares of Common Stock or other securities of the Company.

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

(a) Resignation of Director

On December 17, 2018, Rajen Dalal submitted his resignation as a director from the Board of Directors (the "Board") of the Company, as well as from the Audit Committee of the Board of Directors (the "Audit Committee") and the Nominating and Corporate Governance Committee of the Board of Directors (the "Nominating Committee") effective January 1, 2019. The resignation of Mr. Dalal was not the result of any disagreement with the Company relating to the Company's operations, policies or practices.

(d) Election of Director.

On December 17, 2018, the Board appointed Andrew Sinclair, Ph.D. to the Board, effective upon the closing of the Private Placement. Dr. Sinclair will serve as a Class I director, with a term expiring at the annual meeting of stockholders to be held in 2021, when he is expected to stand for election by a vote of the Company's stockholders. Dr. Sinclair will also serve on the Audit Committee and the Nominating Committee.

Since 2008, Dr. Sinclair has held various positions at Abingworth LLP, a life sciences investment group, where he is currently a Partner and Portfolio Manager. Dr. Sinclair is a member of the Institute of Chartered Accountants in England and Wales and received a Ph.D. in chemistry and genetic engineering at the BBSRC Institute of Plant Science, Norwich, and a B.Sc. in microbiology from King's College London.

Dr. Sinclair has been designated to be appointed to the Board by Abingworth LLP pursuant to the terms of the Purchase Agreement. Dr. Sinclair will receive standard compensation and equity awards available to non-employee directors of the Company.

Dr. Sinclair will also execute the Company's standard form of indemnification agreement, a copy of which has been filed as Exhibit 10.1 to the Company's Registration Statement on Form S-1 (File No. 333-196635) filed with the Securities and Exchange Commission on June 10, 2014.

The Company included an announcement regarding the appointment of Dr. Sinclair in the press release attached hereto as Exhibit 99.1. The information in the press release attached hereto related to Dr. Sinclair shall not be deemed "filed" for purposes of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act.

Item 8.01. Other Events.

Press Release

On December 19, 2018, the Company issued a press release announcing the Private Placement. A copy of the press release is attached to this Current Report on Form 8-K as Exhibit 99.1 and is incorporated by reference herein.

Clinical Trial

The Company's ongoing Phase III trial, DESTINY PWS, evaluating Diazoxide Choline Controlled-Release tablets for the treatment of Prader-Willi syndrome ("PWS"), continues to enroll patients at multiple sites. Generally, the competitive landscape for PWS trials has evolved substantially in 2018 with increased activity in the development of drugs in this space. As of the date of this Form 8-K, the Company is aware of eight other current or proposed clinical trials evaluating PWS therapies. If all of these clinical trials are ongoing concurrently, given the limited number of patients, it may hamper recruitment and enrollment of qualified patients for DESTINY PWS. Following the slower enrollment that the Company experienced earlier in 2018, it has seen an increase in enrollment during the second half of 2018. As of the date of this Form 8-K, it now has eleven sites activated in the United States screening patients and intends to activate additional sites in the first quarter of 2019.

The Company has publicly stated that it expects topline data from DESTINY PWS by mid-year 2019, but now believes that it may encounter delays. In order to achieve this timeline, it will be deploying additional resources for this clinical trial. These resources include, but are not limited to, activating additional sites in the United States and potentially in other geographies, hiring clinical trial specialists for the field, and coordinating with the clinical research organization to deploy additional resources. The Company expects to use a portion of the funds raised in this Private Placement on these increased activities related to DESTINY PWS. Specifically, it expects to spend an additional approximately \$8 million on direct clinical trial activities, \$5 million on general and administrative expenses and \$4 million on other development activities in connection with this deployment of additional resources for the DESTINY PWS trial.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
4.1	Form of Common Stock Purchase Warrant.
10.1	Form of Securities Purchase Agreement, dated as of December 19, 2018.
99.1	Press Release of Soleno Therapeutics, Inc., dated December 19, 2018.

SIGNATURES

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

Date: December 19, 2018

SOLENO THERAPEUTICS, INC.

By: /s/ Anish Bhatnagar

Anish Bhatnagar

Chief Executive Officer

NEITHER THIS WARRANT, NOR THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT (COLLECTIVELY, THE “SECURITIES”), HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), OR UNDER ANY STATE SECURITIES OR BLUE SKY LAWS. THE SECURITIES ARE SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AND RESALE AND MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED EXCEPT AS PERMITTED UNDER THE SECURITIES ACT AND APPLICABLE STATE SECURITIES OR BLUE SKY LAWS, PURSUANT TO REGISTRATION OR QUALIFICATION OR EXEMPTION THEREFROM. INVESTORS SHOULD BE AWARE THAT THEY MAY BE REQUIRED TO BEAR THE FINANCIAL RISKS OF THIS INVESTMENT FOR AN INDEFINITE PERIOD OF TIME. THE COMPANY MAY REQUIRE AN OPINION OF COUNSEL IN FORM AND SUBSTANCE REASONABLY SATISFACTORY TO THE COMPANY TO THE EFFECT THAT ANY PROPOSED TRANSFER IS IN COMPLIANCE WITH THE SECURITIES ACT AND ANY APPLICABLE STATE SECURITIES OR BLUE SKY LAWS. THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN “ACCREDITED INVESTOR” AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT OR OTHER LOAN SECURED BY SUCH SECURITIES.

COMMON STOCK PURCHASE WARRANT

SOLENO THERAPEUTICS, INC.

Warrant Shares: [*]

Issue Date: December [], 2018

THIS COMMON STOCK PURCHASE WARRANT (the “Warrant”) certifies that, for value received, [] (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions set forth herein, at any time after 5:00 p.m., New York time on May [], 2019¹ and until of 5:00 p.m., New York time on (i) December [], 2023²; (the “Expiration Date”) but not thereafter, to subscribe for and purchase from Soleno Therapeutics, Inc., a Delaware corporation (the “Company”), up to [*] shares (the “Warrant Shares”) of the Company’s common stock, par value \$0.001 per share (“Common Stock”). The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(f).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Warrant Agency Agreement between the Company and American Stock Transfer & Trust Company, LLC (the “Warrant Agent”), dated as of December [], 2018 (the “Warrant Agency Agreement”). The following additional terms shall have the following meanings:

- a) “Trading Day” shall mean any day on which the Common Stock is traded on the Trading Market.

¹ 6 months from Issue Date

² 5 year from Issue Date

b) "Trading Market" shall mean the principal securities exchange or securities market, including an over-the-counter market, on which the Common Stock is then traded in the United States.

Section 2. Exercise. This Warrant may be exercised by the Holder only if a registration statement registering the issuance of the Warrant Shares under the Securities Act of 1933, as amended (the "Securities Act"), is effective and available for the issuance of the Warrant Shares.

a) Exercise of Warrant. Subject to the foregoing limitation on exercise, the purchase rights represented by this Warrant may be exercised, in whole or in part, at any time or times on or before the Expiration Date by delivery (whether via facsimile, PDF copy, electronic mail or otherwise) to the Company (or the Warrant Agent or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of the Holder appearing on the books of the Company or the Warrant Agent) of a duly executed copy of the Notice of Exercise form annexed hereto and by payment to the Warrant Agent of an amount equal to the aggregate Exercise Price of the Warrant Shares thereby purchased by wire transfer. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise form be required.

b) Cashless Exercise. On any exercise of this Warrant, in lieu of payment of the aggregate Warrant Price in the manner as specified in Section 2(a), but otherwise in accordance with the requirements of Section 2(a), Holder may elect to receive Warrant Shares equal to the value of this Warrant, or portion hereof as to which this Warrant is being exercised. Thereupon, the Company shall issue to the Holder such number of fully paid and non-assessable Shares as are computed using the following formula:

$$X = Y(A-B)/A$$

where:

X = the number of Warrant Shares to be issued to the Holder;

Y = the number of Warrant Shares with respect to which this Warrant is being exercised (inclusive of the Warrant Shares surrendered to the Company in payment of the aggregate Exercise Price);

A = the Fair Market Value (as determined pursuant to Section 2(c) below) of one Warrant Share; and

B = the Exercise Price.

c) Fair Market Value. If shares of the Common Stock are then traded or quoted on a Trading Market, the fair market value of a Warrant Share shall be the closing price or last sale price of a share of the Common Stock reported for the Trading Day immediately before the date on which Holder delivers this Warrant together with its Notice of Exercise to the Company. If shares of Common Stock are not then traded in a Trading Market, the Board of Directors of the Company shall determine the fair market value of a Warrant Share in its reasonable good faith judgment.

d) Automatic Cashless Exercise upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Warrant Share as determined in accordance with Section 2(c) above is greater than the Exercise Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be exercised pursuant to Section 2(b) above as to all Warrant Shares for which it shall not previously have been exercised, and the Company shall, within a reasonable time, deliver a certificate representing the Warrant Shares issued upon such exercise to Holder in accordance with Section 2(g)(i) herein.

e) The Holder shall not be required to physically surrender this Warrant to the Company or the Warrant Agent until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case the Holder shall surrender this Warrant to the Company or the Warrant Agent for cancellation within three (3) Trading Days after the date the final Notice of Exercise is delivered to the Company or the Warrant Agent. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company or the Warrant Agent shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

f) Exercise Price. The exercise price per share of Common Stock under this Warrant shall be \$2.00, subject to adjustment as provided herein (the "Exercise Price"). There shall be no net-exercise or cashless exercise of this Warrant.

g) Mechanics of Exercise.

i. Delivery of Certificates Upon Exercise. Certificates for shares purchased hereunder shall be transmitted by the Warrant Agent to the Holder by crediting the account of the Holder's prime broker with The Depository Trust Company ("DTC") through its Deposit/Withdrawal at Custodian ("DWAC") system if the Company is then a participant in such system and otherwise by physical delivery to the address specified by the Holder in the Notice of Exercise by the date that is three (3) Trading Days after the receipt by the Warrant Agent of the Notice of Exercise (provided that payment of the Exercise Price has then been received by the Warrant Agent) (such date, the "Warrant Share Delivery Date"). This Warrant shall be deemed to have been exercised upon proper delivery of the Notice of Exercise and payment of the Exercise Price or notice of cashless exercise in accordance with Section 2(b). The Warrant Shares shall be deemed to have been issued, and the Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant has been exercised.

ii. Delivery of New Warrant Upon Exercise. If this Warrant shall have been exercised in part, the Company shall (or shall direct the Warrant Agent to), at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Warrant Agent to transmit to the Holder a certificate or the certificates representing the Warrant Shares pursuant to Section 2(g)(i) by the Warrant Share Delivery Date, then, the Holder will have the right to rescind such exercise.

iv. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall (or shall direct the Warrant Agent to), at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round (up or down) to the nearest whole share.

v. Charges, Taxes and Expenses. Issuance of certificates for Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be paid by the Company, and such certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event certificates for Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company or the Warrant Agent may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

vi. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant pursuant to the terms hereof.

h) Holder's Exercise Limitations. Notwithstanding anything to the contrary contained in this Warrant, this Warrant shall not be exercisable by the Holder hereof to the extent (but only to the extent) that the Holder or any of its Affiliates would beneficially own in excess of 19.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant (the "Maximum Percentage"). For purposes of this Section 2(h), the number of shares of Common Stock beneficially owned by the Holder and its Affiliates shall include the number of Warrant Shares which are subject to the Notice of Exercise with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which are issuable upon (i) exercise of the remaining, unexercised portion of this Warrant and beneficially owned by the

Holder or any of its Affiliates, and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company beneficially owned by the Holder or any of its Affiliates that are subject to a limitation on conversion or exercise similar to the limitation contained herein. To the extent the above limitation applies, the determination of whether this Warrant shall be exercisable (vis-à-vis other convertible, exercisable or exchangeable securities owned by the Holder or any of its Affiliates) and of which such securities shall be exercisable (as among all such securities owned by the Holder) shall, subject to such Maximum Percentage limitation, be determined by the Holder, and the Company shall have no responsibility for determining the accuracy of the Holder's determination. No prior inability to exercise this Warrant pursuant to this paragraph shall have any effect on the applicability of the provisions of this paragraph with respect to any subsequent determination of exercisability. For the purposes of this paragraph, beneficial ownership and all determinations and calculations (including, without limitation, with respect to calculations of percentage ownership) shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. The provisions of this paragraph shall be implemented in a manner otherwise than in strict conformity with the terms of this paragraph to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Maximum Percentage beneficial ownership limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such Maximum Percentage limitation. The limitations contained in this paragraph shall apply to a successor Holder of this Warrant. The holders of Common Stock shall be third party beneficiaries of this paragraph and the Company may not waive this paragraph without the consent of holders of a majority of its outstanding Common Stock. For any reason at any time, upon the written or oral request of the Holder, the Company shall within one (1) Business Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding, including by virtue of any prior conversion or exercise of convertible or exercisable securities into Common Stock, including, without limitation, pursuant to this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company (collectively with the actions described in (i), (ii), (iii) and (iv), a "Share Reorganization"), then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective

immediately after the effective date in the case of a subdivision, combination or re-classification, but if the Company shall legally abandon any such dividend, distribution, subdivision, combination or reclassification prior to effecting such action, no adjustment shall be made pursuant to this Section 3(a) in respect of such action.

b) Pro Rata Distributions. If the Company, at any time while this Warrant is outstanding, shall distribute to all holders of Common Stock (and not to the Holders) evidences of its indebtedness or assets (including cash and cash dividends) or rights or warrants to subscribe for or purchase any security other than a Share Reorganization, then, in each such case, the Exercise Price shall be adjusted by multiplying the Exercise Price in effect immediately prior to the record date fixed for determination of stockholders entitled to receive such distribution by a fraction of which the denominator shall be the VWAP (as defined below) determined as of the record date, and of which the numerator shall be such VWAP on such record date less the then per share fair market value at such record date of the portion of such assets or evidence of indebtedness so distributed applicable to one outstanding share of the Common Stock as determined by the Board of Directors in good faith; provided that in no event shall the Exercise Price be: (1) increased as a result of the application of this Section 3(b); or (ii) decreased below \$2.00. Simultaneously with any adjustment to the Exercise Price pursuant to this Section 3(b), the number of Warrant Shares that may be purchased upon exercise of this Warrant shall be increased proportionately, so that after such adjustment the aggregate Exercise Price payable hereunder for the adjusted number of Warrant Shares shall be the same as the aggregate Exercise Price in effect immediately prior to such adjustment (without regard to any limitations on exercise contained herein). In either case the adjustments shall be described in a statement provided to the Holder of the portion of assets or evidences of indebtedness so distributed or such subscription rights applicable to one share of Common Stock. Such adjustments shall be made whenever any such distribution is made and shall become effective immediately after the record date mentioned above, but if the Company shall legally abandon any such distribution prior to effecting such distribution, no adjustments shall be made pursuant to this Section 3(b) in respect of such action.

For purposes of this Section 3(b), “VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:00 p.m. (New York City time)), (b) if the OTC Bulletin Board is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board, (c) if the Common Stock is not then listed or quoted for trading on the OTC Bulletin Board and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

c) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (a "Change of Control") (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction (without regard to any limitation in Section 2(g) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (together, the "Alternate Consideration"), if any, receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(g) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Any such payment of such amount of such Alternative Consideration shall be made in the same form of consideration (whether securities, cash or property) as is given to the holders of Common Stock in such Fundamental Transaction, and if multiple forms of consideration are given, the consideration shall be paid to the Holder in the same proportion as such consideration is paid to the holders of Common Stock. The terms of any agreement pursuant to which a Fundamental Transaction is effected shall include terms requiring any such successor or surviving entity to comply with the provisions of this Section 3(c) and insuring that this Warrant (or any such replacement security) will be similarly adjusted upon any subsequent Fundamental Transaction.

d) Fundamental Transaction Redemption by the Holder. Notwithstanding the provisions of Section 3(c) above, at the written request of the Holder delivered at any time commencing on the earliest to occur of (x) the public disclosure of any Change of Control, (y) the consummation of any Change of Control and (z) the Holder first becoming aware of any Change of Control, through the date that is twenty (20) days after the public disclosure of the consummation of such Change of Control by the Company pursuant to a Current Report on Form 8-K filed with the Securities and Exchange Commission (“SEC”), the Company or the Successor Entity (as the case may be) shall purchase this Warrant from the Holder on the date of such request by paying to the Holder cash in an amount equal to the Black Scholes Value. For purposes of this provision, “Black Scholes Value” means the value of the unexercised portion of this Warrant remaining on the date of the Holder’s request pursuant to this Section 3(d), which value is calculated using the Black Scholes Option Pricing Model obtained from the “OV” function on Bloomberg utilizing (i) an underlying price per share equal to the greater of (1) the highest Closing Sale Price of the Common Stock during the period beginning on the Trading Day immediately preceding the announcement of the Change in Control (or the consummation of the Change in Control, if earlier) and ending on the Trading Day of the Holder’s request pursuant to this Section 3(d) and (2) the sum of the price per share being offered in cash in the Change in Control (if any) plus the value of the non-cash consideration being offered in the Change in Control (if any), (ii) a strike price equal to the Exercise Price in effect on the date of the Holder’s request pursuant to this Section 3(d), (iii) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the greater of (1) the remaining term of this Warrant as of the date of the Holder’s request pursuant to Section 3(d) and (2) the remaining term of this Warrant as of the date of consummation of the Change in Control or as of the date of the Holder’s request pursuant to this Section 3(d) if such request is prior to the date of the consummation of the Change in Control, (iv) a zero cost of borrow and (v) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately after the date of public announcement of the Change in Control.

e) Calculations. All calculations under this Section 3 shall be made to the nearest cent or rounded down to the nearest whole share, as the case may be. For purposes of this Section 3, any calculation of the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall not include treasury shares, if any. Notwithstanding anything to the contrary in this Section 3, no adjustment in the Exercise Price shall be required unless such adjustment would require an increase or decrease of at least \$0.01 per share in such price; provided however, that any adjustments which by reason of the immediately preceding sentence are not required to be made shall be carried forward and taken into account in any subsequent adjustment. In any case in which this Section 3 shall require that an adjustment in the Exercise Price be made effective as of a record date for a specified event, if Holder exercises this Warrant after such record date, the Company may elect to defer, until the occurrence of such event, the issuance of the shares of Common Stock and other capital stock of the Company in excess of the shares of Common Stock and other capital stock of the Company, if any, issuable upon such exercise on the basis of the Exercise Price in effect prior to such adjustment; provided, however, that in such case the Company or the Warrant Agent shall deliver to the Holder a due bill or other appropriate instrument evidencing the Holder’s right to receive such additional shares and/or other capital securities upon the occurrence of the event requiring such adjustment.

f) Par Value. Notwithstanding anything to the contrary in this Warrant, in no event shall the Exercise Price be reduced below the par value of the Company's Common Stock.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or the Warrant Agent (or other designated agent), together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. Subject to and in accordance with Section 6 the Warrant Agency Agreement, this Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company or the Warrant Agent (or other designated agent), together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 5(b), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver (or cause the Warrant Agent to deliver) a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date set forth on the first page of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. Unless the Holder requests a physical copy of this Warrant (the "Warrant Certificate"), this Warrant shall be issuable in book entry form (the "Book-Entry Warrant Certificate") and shall initially be represented by one or more Book-Entry Warrant Certificates deposited with The Depository Trust Company ("DTC") and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC. Ownership of beneficial interests in this Warrant shall be shown on, and the transfer of such ownership shall be effected through, records maintained by (i) DTC or its nominee for each Book-Entry Warrant Certificate or (ii) institutions that have accounts with DTC (the "Warrant Register"). If DTC subsequently ceases to make its book-entry settlement system available for this Warrant, the Company may instruct the Warrant Agent regarding other arrangements for book-entry settlement. In the event that this Warrant is not eligible for, or it is no longer necessary to have this Warrant available in, book-entry form, the Warrant Agent shall provide written instructions to DTC to deliver to the Warrant Agent for cancellation each Book-Entry Warrant Certificate. In the event that this Warrant is not eligible for, or it is no longer necessary to have this Warrant available in, book-entry form, or if the Holder has otherwise requested a Warrant Certificate rather than a Book-Entry Warrant Certificate, the Company shall deliver or shall cause the

Warrant Agent to deliver to the Holder a physical certificate in the form of this Warrant and the Company or the Warrant Agent shall, thereafter, register this Warrant, upon records to be maintained by the Company for that purpose, in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

- a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2.
- b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company or the Warrant Agent of evidence reasonably satisfactory to them of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it, and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver (or cause the Warrant Agent to deliver) a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.
- c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.
- d) Authorized Shares. The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant (without regard to any limitations on exercise contained herein). The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates to execute and issue the necessary certificates for the Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

e) No Impairment. Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of the Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use best efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

f) Governing Law. This Warrant shall be governed by, and construed in accordance with, the laws of the State of New York without giving effect to the conflicts of law principles thereof.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of the Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices.

i. Notice Procedures. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Warrant Agency Agreement.

ii. Adjustment to Exercise Price. Whenever the Exercise Price or number of Warrant Shares is adjusted pursuant to any provision of Section 3, the Company shall (or cause the Warrant Agent to) promptly provide the Holder a notice setting forth the Exercise Price and number of Warrant Shares after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

iii. Notice of Certain Events. The Company shall (or shall cause the Warrant Agent to) promptly provide the Holder a notice of occurrence of a Fundamental Transaction no later than fifteen (15) Business Days prior to the consummation of such Fundamental Transaction.

iv. Notice to Allow Exercise by the Holder. On or prior to the Expiration Date, if (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be mailed to the Holder at its last address as it shall appear upon the Warrant Register, at least ten (10) calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to mail such notice or any defect therein or in the mailing thereof shall not affect the validity of the corporate action required to be specified in such notice. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of the Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Confidentiality. The Holder agrees to keep confidential any proprietary information relating to the Company delivered by the Company or the Warrant Agent pursuant to the terms of this Warrant; provided that nothing herein shall prevent the Holder from disclosing such information: (i) to any holder of Warrants or Warrant Shares, (ii) to any Affiliate of any holder of Warrants or Warrant Shares or any actual or potential transferee of the rights or obligations hereunder that agrees to be bound by this Section 5(n), (iii) upon order, subpoena, or other process of any court or administrative agency or otherwise required by law, (iv) upon the request or demand of any regulatory agency or authority having jurisdiction over such party, (v) which has been publicly disclosed without breach of any obligation to the Company, (vi) which has been obtained from any Person that is not a party hereto or an Affiliate of any such party without any breach of any obligation to the Company, (vii) in connection with the exercise of any remedy, or the resolution of any dispute hereunder, (viii) to the legal counsel or certified public accountants for any holder of Warrants or Warrant Shares, or (ix) as otherwise expressly contemplated by this Warrant. Notwithstanding the foregoing, the Company shall not provide material, non-public information or confidential or proprietary information to the Holder without such Holder's written consent.

o) Dispute Resolution. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall submit the disputed determinations or arithmetic calculations via facsimile within two (2) Business Days of receipt of the Exercise Notice giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation of the Exercise Price or the Warrant Shares within three Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two (2) Business Days submit via facsimile (i) the disputed determination of the Exercise Price to an independent, reputable investment bank selected by the Company and approved by the Holder or (ii) the disputed arithmetic calculation of the Warrant Shares to the Company's independent, outside accountant. The Company shall cause at its expense the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than ten Business Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error. The expenses of the investment bank and accountant will be borne by the Company unless the investment bank or accountant determines that the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares by the Holder was incorrect, in which case the expenses of the investment bank and accountant will be borne by the Holder.

p) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Pages Follow)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

SOLENO THERAPEUTICS, INC.

By: _____
Name:
Title:

COUNTERSIGNED:

**AMERICAN STOCK TRANSFER & TRUST COMPANY,
LLC, as Warrant Agent**

By: _____
Name:
Title:

NOTICE OF EXERCISE

TO: SOLENO THERAPEUTICS, INC.

(1) The undersigned hereby elects to purchase, pursuant to the provisions of the Warrant, as follows:

Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

Warrant Shares pursuant to the terms of the net exercise provisions set forth in Section 2(b) of the attached Warrant (only if exercised in full), and tenders herewith payment of all applicable transfer taxes, if any.

(2) Payment shall take the form of lawful money of the United States

(3) Please issue a certificate or certificates representing said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number or by physical delivery of a certificate to:

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing warrant, execute this form and supply required information. Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, [] all of or [] shares of the foregoing Warrant and all rights evidenced thereby are hereby assigned to

_____ whose address is

Dated: _____,

Holder's Signature: _____

Holder's Address: _____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever.

SECURITIES PURCHASE AGREEMENT

This Securities Purchase Agreement (this “Agreement”) is dated as of December 19, 2018 (the “Agreement Date”), between Soleno Therapeutics, Inc., a Delaware corporation (the “Company”), and each purchaser identified on Exhibit A hereto (each, including its successors and assigns, a “Purchaser” and collectively, the “Purchasers”).

RECITALS

WHEREAS, on the terms and subject to the conditions set forth in this Agreement and pursuant to Section 4(a)(2) of the Securities Act of 1933, as amended, and Rule 506 promulgated thereunder, the Company desires to issue and sell to each Purchaser, and each Purchaser, severally and not jointly, desires to purchase from the Company, securities of the Company as more fully described in this Agreement;

WHEREAS, the Company has authorized, upon the terms and conditions stated in this Agreement, the sale and issuance of an aggregate of 10,272,375 immediately separable Units (each a “Unit” and collectively, the “Units”), with each Unit consisting of: (i) one share of Common Stock (as hereinafter defined) and (ii) a Warrant (as hereinafter defined) to acquire five percent (5%) of a share of Common Stock;

WHEREAS, at the Closing (as hereinafter defined), each Purchaser, severally and not jointly, wishes to purchase, and the Company wishes to sell, upon the terms and conditions stated in this Agreement, the number of Units as hereafter specified on Exhibit A annexed hereto; and

WHEREAS, the Company has engaged Roth Capital Partners, LLC as its exclusive placement agent (the “Placement Agent”) for the offering of the Units on a “best efforts” basis.

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 each Purchaser agree as follows:

ARTICLE 1
DEFINITIONS

1.1 Definitions. In addition to the terms defined elsewhere in this Agreement, for all purposes of this Agreement, the following terms have the meanings set forth in this Section 1.1:

“Abingworth” means Abingworth LLP.

“Action” means any action, suit, inquiry, notice of violation, proceeding or investigation pending or, to the Company’s Knowledge, threatened against or affecting the Company, or any of its properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign).

“Additional Effectiveness Deadline” means the date which is the earliest to occur of (i) if the Additional Registration Statement does not become subject to any review or comment process by the Commission, (a) ninety (90) days after the filing of the Additional Registration Statement or, if such date is not a Business Day, the next date that is a Business Day, or (b) five (5) Trading Days after the Company receives written notification from the Commission that the Additional Registration Statement will not become subject to any review or comment process by the Commission and the Company fails to request to accelerate the effectiveness of the Additional Registration Statement, or (ii) if the Additional Registration Statement becomes subject to any review or comment process-by the Commission, one hundred and twenty (120) days after the filing of the Additional Registration Statement, or, if such date is not a Business Day, the next date that is a Business Day; provided, however, that in the event the foregoing applicable deadline in any case falls within the Grace Period and the Company has not yet filed with the Commission its Complete Form 10-K for the preceding fiscal year by such deadline, then such deadline

shall be extended until the Business Day following the date on which the Complete Form 10-K for such preceding fiscal year is filed with the Commission; provided further, however, that such deadline shall not be extended beyond the date that is 120 days following the end of the Company's most recent fiscal year (or, if such date is not a Business Day, the next date that is a Business Day). In any case where the Additional Effectiveness Deadline is extended pursuant to the foregoing provisos, then the Additional Effectiveness Deadline, as so extended, shall be deemed the Additional Effectiveness Deadline for all purposes of this Agreement.

"Additional Filing Deadline" means the later to occur of (i) the date sixty (60) days after the date substantially all of the Registrable Securities registered under the immediately preceding effective Registration Statement are sold and (ii) the date six (6) months from the Effective Date of such immediately preceding effective Registration Statement, or, if such date is not a Business Day, the next date that is a Business Day; provided, however, that in the event the foregoing deadline in any case falls within the Grace Period and the Company has not yet filed with the Commission its Complete Form 10-K for the preceding fiscal year by such deadline, then such deadline shall be extended until the Business Day following date on which the Complete Form 10-K for such preceding fiscal year is filed with the Commission; provided further, however, that such deadline shall not be extended beyond the date that is 120 days following end of the Company's most recent fiscal year (or, if such date is not a Business Day, the next date that is a Business Day). In any case where the Additional Filing Deadline is extended pursuant to the foregoing provisos, then the Additional Filing Deadline, as so extended, shall be deemed the Additional Filing Deadline for all purposes of this Agreement.

"Additional Registration Statement" shall have the meaning ascribed to such term in Section 5.1(a).

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Agreement" shall have the meaning ascribed to such term in the preamble.

"Board of Directors" means the board of directors of the Company.

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

"Buy-In" and "Buy-In Price" shall have the meanings ascribed to such terms in Section 6.1(d).

"Closing" shall have the meaning ascribed to such term in Section 2.2.

"Closing Date" shall have the meaning ascribed to such term in Section 2.2.

"Code" shall have the meaning ascribed to such term in Section 3.16.

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value \$0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Company" shall have the meaning ascribed to such term in the preamble.

"Company's Knowledge" means with respect to any statement made to the knowledge of the Company, that statement is based upon the actual knowledge of an executive officer of the Company (as disclosed in the Company's SEC Reports), in each case after making reasonable inquiry.

“Complete Form 10-K” means the annual report on Form 10-K filed by the Company with the Commission that includes, or incorporates by reference from the Company’s most recent definitive proxy statement on Schedule 14A actually filed with the Commission, the information and disclosures required by Part III of the Commission’s Form 10-K. For the avoidance of doubt, if the Company files its annual report on Form 10-K with the Commission and does not include therein all of the information and disclosures required by Part III of the Commission’s Form 10-K, then such annual report on Form 10-K shall not be deemed a Complete Form 10-K for purposes of this Agreement until the Company either (i) files an amendment to such annual report on Form 10-K to include the information and disclosures required by Part III of the Commission’s Form 10-K or (ii) files its definitive proxy statement on Schedule 14A with the Commission for its next annual meeting of stockholders.

“Confidentiality Agreement” shall have the meaning ascribed to such term in Section 3.32.

“Contingent Obligation” has the meaning set forth in Section 3.30.

“Cut Back Shares” shall have the meaning ascribed to such term in Section 5.1(a).

“Disclosure Schedule” means the Disclosure Schedule, if any, delivered by the Company concurrently with the execution and delivery of this Agreement and referred to in the first paragraph of ARTICLE 3 of this Agreement.

“Effective Date” means the date that a Registration Statement is first declared effective by the SEC.

“Effectiveness Deadline” means the Initial Effectiveness Deadline and the Additional Effectiveness Deadline, as applicable.

“Effectiveness Period” shall have the meaning ascribed to such term in Section 5.1(b).

“Environmental Laws” shall have the meaning ascribed to such term in Section 3.15.

“ERISA” shall have the meaning ascribed to such term in Section 3.16.

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

“FCPA” means the Foreign Corrupt Practices Act of 1977, as amended.

“FDA” means the U.S. Food and Drug Administration.

“Filing Deadline” means the Initial Filing Deadline and the Additional Filing Deadline, as applicable.

“GAAP” shall have the meaning ascribed to such term in Section 3.8.

“Grace Period” shall mean the period commencing on the date that is 134 days following the end of the Company’s most recent fiscal third quarter and ending on, and including, the date that is 120 days following the end of the Company’s most recent fiscal year.

“Indebtedness” has the meaning set forth in Section 3.30.

“Indemnified Party” shall have the meaning ascribed to such term in Section 5.4(c).

“Indemnifying Party” shall have the meaning ascribed to such term in Section 5.4(c).

“Initial Registration Statement” has the meaning set forth in Section 5.1(a).

“Initial Effectiveness Deadline” means the date which is the earliest of (i) if the Initial Registration Statement does not become subject to any review or comment process by the Commission, (a) sixty (60) days after the filing of the Initial Registration Statement or (b) five (5) Trading Days after the Company receives written notification from the Commission that the Initial Registration Statement will not become subject to any review or comment process by the Commission and the Company fails to request to accelerate the effectiveness of the Initial Registration Statement, or (ii) if the Initial Registration Statement becomes subject to any review or comment process by the Commission, one hundred and twenty (120) days after the filing of the Initial Registration Statement, or, if such date is not a Business Day, the next date that is a Business Day.

“Initial Filing Deadline” means March 30, 2019, or if such date is not a Business Day, the next date that is a Business Day.

“Insiders” means each director, executive officer, other officer of the Company participating in the offering of the Units, any beneficial owner of 20% or more of the Company’s outstanding voting equity securities, calculated on the basis of voting power, and any promoter connected with the Company in any capacity on the date hereof.

“Insolvent” has the meaning set forth in Section 3.9.

“Intellectual Property” means (i) worldwide patents, patent applications, invention disclosures and other rights of invention, filed with any governmental authority, and all reissues, divisions, renewals, extensions, provisionals, continuations and continuations-in-part thereof and all reexamined patents or other applications or patents claiming the benefit of the filing date of any of the foregoing; (ii) worldwide (A) registered trademarks and service marks and registrations and applications for such registrations, and (B) unregistered trademarks and service marks, trade names, fictitious business names, corporate names, trade dress, logos, product names and slogans, including any common law rights; in each case together with the goodwill associated therewith; (iii) worldwide (A) registered copyrights in published or unpublished works, mask work rights and similar rights, including rights created under Sections 901-914 of Title 17 of the United States Code, mask work registrations, and copyright applications for registration, including any renewals thereof, and (B) any unregistered copyrightable works and other rights of authorship in published or unpublished works; (iv) worldwide (A) internet domain names; (B) website content; (C) telephone numbers; and (D) moral rights and publicity rights; (v) any computer program or other software (irrespective of the type of hardware for which it is intended), including firmware and other software embedded in hardware devices, whether in the form of source code, assembly code, script, interpreted language, instruction sets or binary or object code (including compiled and executable programs), including any library, component or module of any of the foregoing, including, in the case of source code, any related images, videos, icons, audio or other multimedia data or files, data files, and header, development or compilations tools, scripts, and files, and (vi) worldwide confidential or proprietary information or trade secrets, including technical information, inventions and discoveries (whether or not patentable and whether or not reduced to practice) and improvements thereto, know-how, processes, discoveries, developments, designs, techniques, plans, schematics, drawings, formulae, preparations, assays, surface coatings, diagnostic systems and methods, patterns, compilations, databases, database schemas, specifications, technical data, inventions, concepts, ideas, devices, methods, and processes; and includes any rights to exclude others from using or appropriating any Intellectual Property rights, including the rights to sue for or assets claims against and remedies against past, present or future infringements or misappropriations of any or all of the foregoing and rights of priority and protection of interests therein, and any other proprietary, intellectual property or other rights relating to any or all of the foregoing anywhere in the world.

“Issuer Covered Person” shall have the meaning ascribed to such term Section 3.38.

“Legend Removal Date” shall have the meaning ascribed to such term in Section 6.1(c).

“Losses” means any and all losses, liabilities, obligations, claims, contingencies, damages, costs and expenses, including all judgments, amounts paid in settlements, court costs and reasonable attorneys’ fees and costs of investigation.

“Material Adverse Effect” means a material adverse effect on (i) the assets, liabilities, results of operations, condition (financial or otherwise), business, or prospects of the Company taken as a whole, (ii) the ability of the Company to perform its obligations under the Transaction Documents or (iii) the legality, validity or enforceability of any Transaction Document.

“Nasdaq” means The Nasdaq Stock Market, LLC.

“Occupational Laws” shall have the meaning ascribed to such term in Section 3.16.

“OFAC” shall have the meaning ascribed to such term in Section 3.36.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Placement Agent” shall have the meaning ascribed to such term the Recitals to this Agreement.

“Preferred Stock” shall have the meaning ascribed to such term in Section 3.3.

“Price Per Unit” shall have the meaning ascribed to such term in Section 2.1.

“Principal Purchasers” means, as of any time, the Purchaser or Purchasers holding or having the right to acquire, as of such time, at least a majority-in-interest of the total number of Unit Shares; provided that such majority-in-interest must include Abingworth.

“Principal Trading Market” means the Trading Market on which the Common Stock is primarily listed on and quoted for trading.

“Proceeding” means an action, claim, suit, investigation or proceeding (including, without limitation, a partial proceeding, such as a deposition), whether commenced or threatened in writing.

“Prospectus” means the prospectus included in a Registration Statement (including, without limitation, a prospectus that includes any information previously omitted from a prospectus filed as part of an effective registration statement in reliance upon Rule 430A promulgated under the Securities Act), as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by such Registration Statement, and all other amendments and supplements to the Prospectus including post-effective amendments, and all material incorporated by reference or deemed to be incorporated by reference in such Prospectus.

“Purchaser Party” shall have the meaning ascribed to such term in Section 6.6.

“Purchasers” shall have the meaning ascribed to such term in the preamble.

“Registration Statement” means each registration statement required to be filed under ARTICLE 5, including the Initial Registration Statement, all Additional Registration Statements, and, in each case, the Prospectus, amendments and supplements to such registration statement or Prospectus, including pre- and post-effective amendments, all exhibits thereto, and all material incorporated by reference or deemed to be incorporated by reference in such registration statement.

“Registrable Securities” means the Shares and any shares of Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right or other security that is issued as) a dividend or other distribution with respect to, or in exchange for, or in replacement of, the Shares, provided, that the holder of such Shares has completed and delivered to the Company a Selling Stockholder Questionnaire; and provided further, that the Shares shall cease to be Registrable Securities upon the earliest to occur of the following: (A) sale by any Person to the public either pursuant to a registration statement under the Securities Act or under Rule 144 (in which case,

only such Shares sold shall cease to be Registrable Securities) or (B) becoming eligible for sale by the holder thereof pursuant to Rule 144 without volume or manner of sale restrictions and without current public information pursuant to Rule 144.

“Removal Request Date” shall have the meaning ascribed to such term in Section 6.1(c).

“Rule 144,” “Rule 415,” and “Rule 424” means Rule 144, Rule 415 and Rule 424, respectively, promulgated by the Commission pursuant to the Securities Act, as such Rules may be amended from time to time, or any similar rule or regulation hereafter adopted by the SEC having substantially the same effect as such Rule.

“SEC Guidance” means (i) any publicly-available written or oral guidance, comments, requirements or requests of the Commission staff and (ii) the Securities Act.

“SEC Restrictions” shall have the meaning ascribed to such term in Section 5.1(a).

“SEC Reports” shall have the meaning ascribed to such term in Section 3.7.

“Securities” means the Units, the Warrants and the Shares.

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

“Selling Stockholder Questionnaire” shall have the meaning ascribed to such term in Section 5.2(j).

“Shares” means, collectively, the Unit Shares and the Warrant Shares.

“Short Sales” means all “short sales” as defined in Rule 200 of Regulation SHO under the Exchange Act (but shall not be deemed to include the location and/or reservation of borrowable shares of Common Stock).

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

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange (or any successors to any of the foregoing).

“Transaction Documents” means this Agreement, the Warrants, all exhibits and schedules thereto and hereto and any other documents or agreements executed in connection with the transactions contemplated hereunder.

“Transfer Agent” means American Stock Transfer & Trust Company, LLC, the current transfer agent of the Company, with a mailing address of 6201 15th Avenue, Brooklyn, NY 11219, and a telephone number of (718) 921-8200, and any successor transfer agent of the Company.

“Units” has the meaning set forth in the Recitals to this Agreement. Units will not be issued or certificated. The Unit Shares and the Warrants are immediately separable and will be issued separately.

“Unit Purchase Price” shall have the meaning ascribed to such term in Section 2.1.

“Unit Shares” shall have the meaning ascribed to such term the Recitals to this Agreement.

“Voting Commitment” shall have the meaning ascribed to such term in Section 4.2(a).

“Warrant Exercise Price” shall mean \$2.00.

“Warrants” shall have the meaning ascribed to such term in Section 2.3.

“Warrant Shares” means the shares of Common Stock issuable upon exercise of the Warrants.

ARTICLE 2 PURCHASE AND SALE

2.1 Purchase and Sale. Subject to and upon the terms and conditions set forth in this Agreement, at the Closing, the Company shall issue and sell to each Purchaser, and each Purchaser shall, severally and not jointly, purchase from the Company, such number of Units set forth opposite their respective names on Exhibit A, at a price per Unit equal to \$1.60625 (the “Price Per Unit” and the total purchase price for the Units, the “Unit Purchase Price”).

2.2 Closing. The Company agrees to issue and sell to the Purchasers and, in consideration of and in express reliance upon the representations, warranties, covenants, terms and conditions of this Agreement, the Purchasers agree, severally and not jointly, to purchase the Units. The closing of the purchase and sale of the Units (the “Closing”) shall take place at the offices of Wilson Sonsini Goodrich & Rosati, located at 650 Page Mill Road, Palo Alto, California, 94304, three Business Days following the satisfaction or waiver of the conditions set forth in Section 2.5, or at such other time and place or on such date as the Principal Purchasers and the Company may agree upon (such date is hereinafter referred to as the “Closing Date”).

2.3 Payment. On the Closing Date, (a) each Purchaser shall pay to the Company its Unit Purchase Price in United States dollars and in immediately available funds, by wire transfer to the Company’s account as set forth in instructions previously delivered to each Purchaser, (b) the Company shall irrevocably instruct the Transfer Agent to deliver, on an expedited basis, to each Purchaser, either in book entry form in the Direct Registration System or in the form of a stock certificate, as set forth on the Stock Registration Questionnaire included as Exhibit C, the number of Unit Shares set forth opposite such Purchaser’s name on Exhibit A hereto, and (c) the Company shall issue to each Purchaser a warrant substantially in the form attached hereto as Exhibit B (each a “Warrant” and collectively, the “Warrants”) pursuant to which such Purchaser shall have the right to acquire the number of Warrant Shares set forth opposite such Purchaser’s name on Exhibit A hereto, and in the case of clauses (b) and (c), duly executed on behalf of the Company and registered in the name of such Purchaser as set forth on the Stock Registration Questionnaire included as Exhibit C. The Warrants issued and sold at the Closing shall have an initial exercise price equal to the Warrant Exercise Price.

2.4 Deliveries.

(a) Company. On or prior to the Closing Date, the Company shall deliver or cause to be delivered to each Purchaser the following:

(i) this Agreement duly executed by the Company;

(ii) a copy of the irrevocable instructions to the Transfer Agent instructing the Transfer Agent to deliver, on an expedited basis, to such Purchaser, either in book entry form in the Direct Registration System or in the form of a stock certificate as indicated by such Purchaser on the Stock Registration Questionnaire included as Exhibit C, the number of Unit Shares set forth opposite such Purchaser’s name on Exhibit A hereto, registered in the name of such Purchaser as set forth on the Stock Registration Questionnaire included as Exhibit C;

(iii) a Warrant, registered in the name of such Purchaser as set forth on the Stock Registration Questionnaire included as Exhibit C, to purchase up to the number of shares of Common Stock set forth opposite such Purchaser’s name on Exhibit A hereto;

(iv) the Company shall have delivered a Certificate, executed on behalf of the Company by its chief executive officer and its principal financial officer, dated as of the Closing Date, certifying to the fulfillment of the conditions specified in subsections (i), (ii), (iv), (v), (vi), (vii), (viii) and (ix) of Section 2.5(b);

(v) the Company shall have delivered a Certificate, executed on behalf of the Company by its Secretary, dated as of the Closing Date, certifying the resolutions adopted by the Board of Directors and a duly authorized committee thereof approving the transactions contemplated by the Transaction Documents and the issuance of the Securities, certifying the current versions of the Certificate of Incorporation and Bylaws of the Company and certifying as to the signatures and authority of Persons signing the Transaction Documents and related documents on behalf of the Company;

(vi) a legal opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation counsel for the Company, in substantially the form attached hereto as Exhibit C, executed by Wilson Sonsini Goodrich & Rosati, Professional Corporation and addressed to the Purchasers and to the Placement Agent;

(vii) fully completed and duly executed Bad Actor Questionnaires for each officer, director and beneficial owners of 20% or more of the issuer's outstanding equity securities, in the form attached hereto as Exhibit F; and

(viii) A Nasdaq Listing of Additional Shares notification form.

(b) Purchasers. On or prior to the Closing Date, each Purchaser shall deliver or cause to be delivered to the Company the following:

(i) this Agreement duly executed by such Purchaser;

(ii) a fully completed and duly executed Stock Registration Questionnaire in the form attached hereto as Exhibit C;

(iii) unless such Purchaser is a director or an executive officer (as such term is defined in Rule 501(f) promulgated by the Commission under the Securities Act) of the Company as of the Closing Date, a fully completed and duly executed Accredited Investor Qualification Questionnaire in the form attached hereto as Exhibit E; and

(iv) the Unit Purchase Price by wire transfer to the account specified by the Company.

2.5 Closing Conditions.

(a) The obligations of the Company hereunder with respect to any Purchaser in connection with the Closing are subject to the following conditions being met:

(i) the accuracy in all material respects on the Closing Date of the representations and warranties of such Purchaser contained herein (unless as of a specific date therein in which case they shall be accurate as of such date);

(ii) all obligations, covenants and agreements of such Purchaser required to be performed at or prior to the Closing Date shall have been performed in all material respects;

(iii) the delivery by such Purchaser of the items set forth in Section 2.4(b) of this Agreement; and

(iv) Nasdaq shall have raised no objection to the consummation of the transactions contemplated by the Transaction Documents in the absence of stockholder approval of such transactions.

(b) The respective obligations of the Purchasers hereunder in connection with the Closing are subject to the following conditions being met:

(i) the representations and warranties made by the Company in ARTICLE 3 hereof qualified as to materiality shall be true and correct as of the date hereof and the Closing Date, except to the extent any such representation or warranty expressly speaks as of an earlier date, in which case such representation or warranty shall be true and correct as of such earlier date, and, the representations and warranties made by the Company in ARTICLE 3 hereof not qualified as to materiality shall be true and correct in all material respects as of the date hereof and the Closing Date, except to the extent any such representation or warranty expressly speaks as of an earlier date, in which case such representation or warranty shall be true and correct in all material respects as of such earlier date;

(ii) all obligations, covenants and agreements of the Company required to be performed at or prior to the Closing Date, whether under this Agreement or the other Transaction Documents, shall have been performed in all material respects;

(iii) the delivery by the Company of the items set forth in Section 2.4(a) of this Agreement;

(iv) the Company shall have obtained any and all consents, permits, approvals, registrations and waivers necessary or appropriate for consummation of the purchase and sale of the Units and the consummation of the other transactions contemplated by the Transaction Documents, all of which shall be in full force and effect, except for such that would not reasonably be expected to have a Material Adverse Effect;

(v) no judgment, writ, order, injunction, award or decree of or by any court, or judge, justice or magistrate, including any bankruptcy court or judge, or any order of or by any governmental authority, shall have been issued, and no action or proceeding shall have been instituted by any governmental authority, enjoining or preventing the consummation of the transactions contemplated hereby or in the other Transaction Documents;

(vi) no stop order or suspension of trading shall have been imposed by Nasdaq, the Commission or any other governmental or regulatory body with respect to public trading in the Common Stock;

(vii) Nasdaq shall have raised no objection to the consummation of the transactions contemplated by the Transaction Documents in the absence of stockholder approval of such transactions;

(viii) there shall have been no Material Adverse Effect with respect to the Company since the date hereof;

(ix) the Company's Board of Directors shall have approved the appointment of Andrew Sinclair, Ph.D., the designee of Abingworth, to the Company's Board of Directors, and taken all action necessary to effect such appointment; and

(x) from the date hereof to the Closing Date, trading in the Common Stock shall not have been suspended by the Commission or the Company's principal Trading Market, and, at any time prior to the Closing Date, trading in securities generally as reported by Bloomberg L.P. shall not have been suspended or limited, or minimum prices shall not have been established on securities whose trades are reported by such service, or on any Trading Market, nor shall a banking moratorium have been declared either by the United States or New York State authorities nor shall there have occurred any material outbreak or escalation of hostilities or other national or international calamity of such magnitude in its effect on, or any material adverse change in, any financial market which, in each case, in the reasonable judgment of such Purchaser, makes it impracticable or inadvisable to purchase the Securities at the Closing.

ARTICLE 3
REPRESENTATIONS AND WARRANTIES OF THE COMPANY

The Company and all of its subsidiaries (and all references to the Company below shall be deemed to also include its subsidiaries to the extent the context requires) hereby represents and warrants to the Purchasers and to the Placement Agent as of the date hereof (except for the representations and warranties that speak as of a specific date, which shall be made as of such date) that, except as otherwise set forth in the Disclosure Schedule, if any, delivered herewith:

3.1 Organization, Good Standing and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation and has all requisite corporate power and legal authority to own and use its properties and assets and carry on its business as now conducted and to own its properties. The Company is not in violation of any of the provisions of its Certificate of Incorporation or Bylaws. The Company is duly qualified to do business as a foreign corporation and is in good standing in each jurisdiction in which the conduct of its business or its ownership or leasing of property makes such qualification or leasing necessary unless the failure to so qualify has not had and could not reasonably be expected to have 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 direct or indirect subsidiaries other than those listed in Schedule 3.1 hereto. Except as disclosed in Schedule 3.1 hereto, the Company owns, directly or indirectly, all of the capital stock or comparable equity interests of each subsidiary free and clear of any and all liens, and all the issued and outstanding shares of capital stock or comparable equity interest of each subsidiary are validly issued and are fully paid, non-assessable and free of preemptive and similar rights to subscribe for or purchase securities.

3.2 Authorization; Enforcement. The Company has all corporate right, power and authority to enter into this Agreement and each of the other Transaction Documents and to consummate the transactions and otherwise carry out its obligations contemplated hereby and thereby. All corporate action on the part of the Company, its directors and stockholders necessary for the authorization, execution, delivery and performance of the Transaction Documents by the Company, the authorization, sale, issuance and delivery of the Securities contemplated herein and the performance of the Company's obligations hereunder and thereunder has been taken. The Transaction Documents have been (or upon delivery will have been) duly executed and delivered by the Company and constitute the legal, valid and binding obligation of the Company, enforceable against the Company in accordance with their terms, except: (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

3.3 Capitalization. The authorized capital stock of the Company consists of 100,000,000 shares of Common Stock and 10,000,000 shares of preferred stock, par value \$0.001 per share (the "Preferred Stock"), of which 21,435,241 shares of Common Stock are outstanding as of the date hereof (prior to the issuance of the Units) and no shares of Preferred Stock are outstanding as of the date hereof. All of the issued and outstanding shares of the Company's capital stock have been duly authorized and validly issued and are fully paid and non-assessable. The Company has not issued any shares of capital stock since its most recently filed Quarterly Report on Form 10-Q. Except (i) for options to purchase Common Stock or other equity awards (including restricted stock units) issued to employees, consultants and members of the Board of Directors pursuant to the equity compensation plans or arrangements disclosed in the SEC Reports, (ii) for securities exercisable for, or convertible into or exchangeable for any shares of capital stock of the Company disclosed in the SEC Reports, (iii) shares issuable under any deferred compensation plan of the Company disclosed in the SEC Reports, and (iv) as contemplated by this Agreement, there are no existing options, warrants, calls, preemptive (or similar) rights, subscriptions or other rights, agreements, arrangements or commitments of any character obligating the Company to issue, transfer or sell, or cause to be issued, transferred or sold, any shares of the capital stock of, or other equity interests in, the Company or any securities convertible into or exchangeable for such shares of capital stock or other equity interests, and there are no outstanding contractual obligations of the Company to repurchase, redeem or otherwise acquire any shares of its capital stock or other equity interests. No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. There are no outstanding securities or instruments of the Company that contain any redemption or similar

provisions, and there are no contracts, commitments, understandings or arrangements by which the Company is or may become bound to redeem a security of the Company. Except as disclosed in the SEC Reports, the Company does not have any stock appreciation rights or “phantom stock” plans or any similar plan or agreement. The issue and sale of the Units will not result in the right of any holder of Company securities to adjust the exercise, conversion or exchange price under such securities. Except for customary adjustments as a result of stock dividends, stock splits, combinations of shares, reorganizations, recapitalizations, reclassifications or other similar events, there are no anti-dilution or price adjustment provisions contained in any security issued by the Company (or in any agreement providing rights to security holders) and the issuance and sale of the Securities will not obligate the Company to issue shares of Common Stock or other securities to any Person (other than the Purchasers) and will not result in a right of any holder of securities to adjust the exercise, conversion, exchange or reset price under such securities. There are no stockholders agreements, voting agreements or other similar agreements with respect to the Company’s capital stock to which the Company is a party or, to the Company’s Knowledge, between or among any of the Company’s stockholders.

3.4 Issuance; Reservation of Shares. The issuance of the Unit Shares has been duly and validly authorized by all necessary corporate and stockholder action, and the Unit Shares, when issued and paid for pursuant to this Agreement, will be validly issued, fully paid and non-assessable, and shall be free and clear of all encumbrances and restrictions (other than as provided in the Transaction Documents). The issuance of the Warrants and the Warrant Shares has been duly and validly authorized by all necessary corporate and stockholder action, and the Warrant Shares, when issued upon the due exercise of the Warrants, will be validly issued, fully paid and non-assessable, and shall be free and clear of all encumbrances and restrictions (other than as provided in the Transaction Documents). The Company will reserve, at all times that any of the Warrants remain outstanding, such number of shares of Common Stock sufficient to enable the full exercise of the then outstanding Warrants. Assuming (A) the accuracy of the representations and warranties of the Purchasers set forth in ARTICLE 4 hereof, (B) none of the Insiders or the Placement Agent or its controlling persons (within the meaning of Rule 506(d)(1) of the Securities Act) is subject to any “bad actor” disqualification specified in Rule 506(d) of the Securities Act that has not been waived pursuant to Rule 506(d)(2) of the Securities Act, and (C) the Insiders and the Placement Agent and its controlling persons (within the meaning of Rule 506(d)(1) of the Securities Act) have complied with the “bad actor” disclosure requirements set forth in Rule 506(e) of the Securities Act and any disclosure requirements in connection with any waiver of the disqualification provisions of Rule 506(d) of the Securities Act, then the offer, issuance and sale of the Shares to the Purchasers pursuant to the Agreement, are exempt from the registration requirements of the Securities Act.

3.5 No Conflicts. The execution, delivery and performance of the Transaction Documents by the Company and the issuance and sale of the Securities will not conflict with or result in a breach or violation of any of the terms and provisions of, or constitute a default (or an event that 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 (with or without notice, lapse of time or both) of (i) the Company’s Certificate of Incorporation or the Company’s Bylaws, both as in effect on the date hereof (true and complete copies of which have been made available to the Purchasers through the EDGAR system), (ii) any statute, rule, regulation or order, judgment, injunction, decree or other restriction of any governmental agency or body or any court, domestic or foreign, having jurisdiction over the Company or any of its respective assets or properties, or (iii) any material agreement or instrument to which the Company is a party or by which the Company is bound or to which any of their respective assets or properties is subject, in each case except for any such conflict, breach, violation or default that would not reasonably be expected to have a Material Adverse Effect.

3.6 Filings, Consents and Approvals. The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person in connection with the execution, delivery and performance by the Company of the Transaction Documents, other than filings that have been made, or will be made, or consents that have been obtained, or will be obtained, pursuant to the rules and regulations of Nasdaq, including a Nasdaq Listing of Additional Shares notification form, applicable state securities laws and post-sale filings pursuant to applicable state and federal securities laws which the Company undertakes to file or obtain within the applicable time periods and the filings required to be made pursuant to Sections 5.1 and 6.4 of this Agreement.

3.7 **SEC Reports.** The Company has filed all reports, schedules, forms, registration 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 twenty-four (24) months preceding the date hereof (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, being collectively referred to herein as the “SEC Reports”) on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Company has never been an issuer subject to Rule 144(i) under the Securities Act. The Company has not received any letters of comment from the staff of the Commission that have not been satisfactorily resolved as of the date hereof. All material agreements to which the Company is a party or to which the property or assets of the Company is subject are included as part of or identified in the SEC Reports, to the extent such agreements are required to be included or identified pursuant to the rules and regulations of the SEC.

3.8 **Financial Statements.** The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission 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 (“GAAP”), applied on a consistent basis during the periods involved, 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.

3.9 **Material Changes; Undisclosed Events, Liabilities or Developments.** Since the date of the latest audited financial statements included within the SEC Reports, except as specifically disclosed in a subsequent SEC Report filed prior to the date hereof: (i) there has been no event, occurrence or development that has had or that could reasonably be expected to have a Material Adverse Effect, (ii) the Company has not incurred any liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company’s financial statements pursuant to GAAP or disclosed in filings made with the Commission, (iii) the Company has not altered its method of accounting or changed its principal registered public accounting firm, (iv) the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock and (v) the Company has not issued any equity securities, except pursuant to existing Company equity compensation plans. The Company does not have pending before the Commission any request for confidential treatment of information. The Company has not taken any steps to seek protection pursuant to any bankruptcy law and the Company has not received any written notice that any Person intends to initiate involuntary bankruptcy proceedings against the Company. The Company is not as of the date hereof, and immediately after giving effect to the transactions contemplated hereby to occur at the Closing, will not be Insolvent (as defined below). For purposes of this Section 3.9, “Insolvent” means (i) the present fair saleable value of the Company’s assets is less than the amount required to pay the Company’s total Indebtedness, (ii) the Company is unable to pay its debts and liabilities, subordinated, contingent or otherwise, as such debts and liabilities become absolute and matured, (iii) the Company intends to incur or believes that it will incur debts that would be beyond its ability to pay as such debts mature, or (iv) the Company has unreasonably small capital with which to conduct the business in which it is engaged as such business is now conducted.

3.10 **Internal Controls.** The Company maintains a system of internal control over financial reporting (as such term is defined in Rule 13a-15(f) of the Exchange Act) that complies with the requirements of the Exchange Act and has been designed by the Company’s principal executive officer and principal financial officer, or under their supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles; the Company’s internal control over financial reporting is effective and the Company is not aware of any material weaknesses in its internal control over financial reporting; there has been no fraud, whether or not material, that involves management or other employees who have a significant role in the Company’s internal control over

financial reporting; since the date of the latest audited financial statements included or incorporated by reference in the Company's SEC Reports and except as disclosed in the Company's SEC Reports, there has been no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. The Company maintains disclosure controls and procedures (as such term is defined in Rule 13a-15(e) of the Exchange Act) that comply with the requirements of the Exchange Act; such disclosure controls and procedures have been designed to ensure that material information relating to the Company is made known to the Company's principal executive officer and principal financial officer by others within those entities; such disclosure controls and procedures are effective. The Company is in compliance in all material respects with all applicable provisions of the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated by the Commission thereunder. The Company maintains a system of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization, and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

3.11 Accountant. To the Company's Knowledge, Marcum LLP, which has expressed its opinion with respect to the Company's financial statements as of December 31, 2017, 2016 and 2015, respectively, and included in the SEC Reports (including the related notes), is an independent registered public accounting firm as required by the Act and the Public Company Accounting Oversight Board (United States). Marcum LLP has not been engaged by the Company to perform any "prohibited activities" (as defined in Section 10A of the Exchange Act).

3.12 Litigation. Except as set forth in the SEC Reports, there is not pending or, to the Company's Knowledge, threatened or contemplated, any action, suit or proceeding to which the Company is a party or of which any property or assets of the Company is the subject before or by any court or governmental agency, authority or body, or any arbitrator, which, individually or in the aggregate, (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Securities or (ii) could, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. There are no current or pending legal, governmental or regulatory actions, suits or proceedings that are required to be described in the SEC Reports that have not been so described. Neither the Company nor any director or officer of the Company is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty. There has not been, and to the Company's Knowledge, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company under the Exchange Act or the Securities Act.

3.13 Tax Matters. The Company (i) has filed all federal, state, local and foreign income, franchise tax and all other tax returns reports and declarations required by any jurisdiction to which it is subject to be filed or has requested extensions thereof (except in any case in which the failure so to file would not have a Material Adverse Effect), except as set forth in the SEC Reports, (ii) has paid all taxes required to be paid by it and any other assessment, fine or penalty levied against it, to the extent that any of the foregoing is due and payable, except for any such assessment, fine or penalty that is currently being contested in good faith and (iii) 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, except in those, in each of the cases described in clauses (i), (ii) and (iii) of this Section 3.13, that would not singularly or in the aggregate have a Material Adverse Effect, except as set forth in or contemplated in the SEC Reports.

3.14 Insurance. The Company maintains in full force and effect insurance coverage that is customary for comparably situated companies for the business being conducted and properties owned or leased by the Company, and the Company reasonably believes such insurance coverage to be adequate against all liabilities, claims and risks against which it is customary for comparably situated companies to insure.

3.15 Environmental Matters. The Company (A) is in compliance in all material respects with any and all applicable federal, state, local and foreign laws, rules, regulations, decisions and orders relating to pollution or protection of human health and safety, the environment (including, without limitation, ambient air, surface water,

groundwater, land surface or subsurface strata), including, without limitation, laws relating to emissions, discharges, releases or threatened releases of chemicals, hazardous or toxic substances or wastes, pollutants or contaminants (collectively, "Environmental Laws"); (B) has received and is in material compliance with all permits, licenses or other approvals required of it under applicable Environmental Laws to conduct its business; and (C) has not received notice of any actual or potential liability for the investigation or remediation of any disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants, except in any such case for any such failure to comply, or failure to receive required permits, licenses or approvals, or liability as would not, individually or in the aggregate, have a Material Adverse Effect.

3.16 Labor Relations. The Company (A) is in compliance, in all material respects, with any and all applicable foreign, federal, state and local laws, rules, regulations, treaties, statutes and codes promulgated by any and all governmental authorities (including pursuant to the Occupational Health and Safety Act) relating to the protection of human health and safety in the workplace ("Occupational Laws"); (B) has received all material permits, licenses or other approvals required of it under applicable Occupational Laws to conduct their business as currently conducted; and (C) is in compliance, in all material respects, with all terms and conditions of such permits, licenses or approvals. No action, proceeding, revocation proceeding, writ, injunction or claim is pending or, to the Company's Knowledge, threatened against the Company relating to Occupational Laws, and the Company does not have knowledge of any material facts, circumstances or developments relating to its operations or cost accounting practices that could reasonably be expected to form the basis for or give rise to such actions, suits, investigations or proceedings. Each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), that is maintained, administered or contributed to by the Company or any of its affiliates for employees or former employees of the Company and has been maintained in material compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to, ERISA and the Internal Revenue Code of 1986, as amended (the "Code"). No prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred with respect to any such plan excluding transactions effected pursuant to a statutory or administrative exemption; and for each such plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, no "accumulated funding deficiency" as defined in Section 412 of the Code has been incurred, whether or not waived, and the fair market value of the assets of each such plan (excluding for these purposes accrued but unpaid contributions) exceeds the present value of all benefits accrued under such plan determined using reasonable actuarial assumptions. To the Company's Knowledge, no executive officer or key employee of the Company plans to terminate employment with the Company. The Company is in compliance in all material respects with all federal, state, local and foreign laws and regulations respecting labor, employment and employment practices and benefits, terms and conditions of employment and wages and hours, except where failure to be in compliance would not, either individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

3.17 Certificates, Authorities and Permits. The Company holds, and is operating in compliance in all material respects with, all registrations, approvals, certificates, authorizations and permits of any governmental authority or self-regulatory body required for the conduct of its business as described in the SEC Reports, including without limitation, all such registrations, approvals, certificates, authorizations and permits required by the FDA or any other federal, state, local or foreign agencies or bodies engaged in the regulation of pharmaceuticals or biohazardous substances or materials; and the Company has not received notice of any revocation or modification of any such registration, approval, certificate, authorization and permit or has reason to believe that any such registration, approval, certificate, authorization and permit will not be renewed in the ordinary course that could lead to, the withdrawal, revocation, suspension, modification or termination of any such registration, approval, certificate, authorization or permit, which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, could result in a Material Adverse Effect.

3.18 Title to Assets. The Company has good and marketable title to all property (whether real or personal) owned by it that is material to the business of the Company, in each case free and clear of all liens, claims, security interests, other encumbrances or defects, except those that could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. The property held under lease by the Company is held under valid, subsisting and enforceable leases of which the Company is in compliance in all material respects, with only such exceptions with respect to any particular lease as do not interfere in any material respect with the conduct of the business of the Company.

3.19 Intellectual Property. The Company owns, possesses, or can acquire on reasonable terms, all Intellectual Property necessary for the conduct of its business as now conducted or as described in the SEC Reports to be conducted in all material respects, except as such failure to own, possess, or acquire such rights would not have a Material Adverse Effect. To the Company's Knowledge, all Intellectual Property of the Company is valid and enforceable, except as would not, singly or in the aggregate, have a Material Adverse Effect. The Company has not received any opinion from its legal counsel concluding that any activities of its respective businesses infringe, misappropriate, or otherwise violate, valid and enforceable Intellectual Property of any other person. Except as set forth in the SEC Reports, (A) to the Company's Knowledge, there is no infringement, misappropriation or violation by third parties of any such Intellectual Property, except as such infringement, misappropriation or violation would not have a Material Adverse Effect; (B) there is no pending or, to Company's Knowledge, threatened action, suit, proceeding or claim by others challenging the Company's rights in or to any such Intellectual Property, and the Company is unaware of any material facts which would form a reasonable basis for any such claim; (C) the Intellectual Property owned by the Company, and to the Company's Knowledge, the Intellectual Property licensed to the Company, have not been adjudged invalid or unenforceable, in whole or in part, and there is no pending or threatened action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property, and the Company is unaware of any material facts which would form a reasonable basis for any such claim; (D) to the Company's Knowledge, there is no pending or threatened action, suit, proceeding or claim by others that the Company infringes, misappropriates or otherwise violates any Intellectual Property or other proprietary rights of others, the Company has not received any written notice of such claim and the Company is unaware of any other material fact which would form a reasonable basis for any such claim; and (E) to the Company's Knowledge, no Company employee is obligated under any contract (including licenses, covenants or commitments of any nature) or other agreement, or subject to any judgment, decree or order of any court or administrative agency, that would interfere with the use of such employee's best efforts to promote the interest of the Company or that would conflict with the Company's business; none of the execution and delivery of this Agreement, the carrying on of the Company's business by the employees of the Company, and the conduct of the Company's business as proposed, will conflict with or result in a breach of terms, conditions, or provisions of, or constitute a default under, any contract, covenant or instrument under which any such employee is now obligated; and it is not and will not be necessary to use any inventions, trade secrets or proprietary information of any of its consultants, or its employees (or Persons it currently intends to hire) made prior to their employment by the Company, except for technology that is licensed to or owned by the Company. All licenses for the use of Company's Intellectual Property are valid, binding upon, and enforceable against the Company and, to the Company's Knowledge, the other parties thereto in accordance to its terms. The Company has complied in all material respects with any intellectual property license, and except as would not, singly or in the aggregate, have a Material Adverse Effect, the Company is not in breach nor has received any written notice asserting or threatening any claim of breach of any intellectual property license, and to the Company's Knowledge there is no breach or anticipated breach by any other person to any intellectual property license. The Company has taken reasonable steps to protect, maintain and safeguard its Intellectual Property, including the execution of appropriate nondisclosure and confidentiality agreements. The Company has not received a notice (written or otherwise) that any of the Intellectual Property necessary for the conduct of its business as now conducted or as described in the SEC Reports has expired, terminated or been abandoned, or is expected to expire or terminate or be abandoned, within two (2) years from the date of this Agreement.

3.20 FDA and Related Matters. The Company and, to the Company's Knowledge, others who perform services on the Company's behalf have been and are in compliance with all applicable federal, state, local and foreign laws, rules, regulations, standards, orders and decrees governing their respective businesses, including without limitation, all regulations promulgated by the FDA or any other federal, state, local or foreign agencies or bodies engaged in the regulation of pharmaceuticals or biohazardous substances or materials, except where noncompliance would not, singly or in the aggregate, have a Material Adverse Effect; and the Company has not received any notice citing action or inaction by the Company or others who perform services on the Company's behalf that would constitute non-compliance with any applicable federal, state, local or foreign laws, rules, regulations or standards excepting, however, such actions that have heretofore been resolved to the satisfaction of such governmental entity. All tests and preclinical and clinical studies conducted by or on behalf of the Company were and, if still pending, are being, conducted in all material respects in accordance with experimental protocols, procedures and controls generally used by qualified experts in the preclinical and clinical study of new drugs, and laws and regulations; the descriptions of the tests and preclinical and clinical studies, and results thereof, conducted by or on behalf of the Company are accurate in all material respects; except as disclosed in the SEC Reports, the

Company has not received any written notice or correspondence from the FDA or any foreign, state or local governmental body exercising comparable authority or any Institutional Review Board or comparable authority requiring the termination, suspension, material modification or clinical hold of any tests or preclinical or clinical studies being conducted by or on behalf of the Company, which termination, suspension, material modification or clinical hold would reasonably be expected to have a Material Adverse Effect; and the Company has not received any written notices or correspondence from others concerning the termination, suspension, material modification or clinical hold of any tests or preclinical or clinical studies conducted by others on any active ingredient contained in the existing products of the Company or the products described in the SEC Reports as being under development, which termination, suspension, material modification or clinical hold would reasonably be expected to have a Material Adverse Effect.

3.21 Compliance with Nasdaq Continued Listing Requirements. Except as set forth in the SEC Reports, the Company is, and has no reason to believe that it will not, upon the issuance of the Securities hereunder, continue to be, in compliance with the listing and maintenance requirements for continued listing on Nasdaq in all material respects. Assuming the representations and warranties of the Purchasers set forth in Section 4.2 are true and correct in all material respects, the consummation of the transactions contemplated by the Transaction Documents does not contravene the rules and regulations of Nasdaq. Except as set forth in the SEC Reports, (i) there are no proceedings pending or, to the Company's Knowledge, threatened against the Company relating to the continued listing of the Common Stock on Nasdaq and (ii) the Company has not received any notice of, nor to the Company's Knowledge is there any basis for, the delisting of the Common Stock from Nasdaq.

3.22 Application of Takeover Protections. The Company and the Board of Directors have taken 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 Company's certificate of incorporation (or similar charter documents) or the laws of its state of incorporation, including Section 203 of the Delaware General Corporation Law, as well as other laws or provisions that would prevent the Purchasers or the Company from fulfilling their obligations or exercising their rights under the Transaction Documents, including without limitation as a result of the Company's issuance of the Securities and the Purchasers' ownership of the Securities and exercise in full of the Warrants.

3.23 Fees. The Company shall be responsible for the payment of the Placement Agent's fees. No Person will have, as a result of the transactions contemplated by the Transaction Documents, any valid right, interest or claim against or upon any Purchaser for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of the Company, and no Purchaser 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 3.23 that may be due in connection with the transactions contemplated by the Transaction Documents and that arise out of any agreement, arrangement or understanding entered into by or on behalf of the Company. The Company shall pay, and hold each Purchaser harmless against, any liability, loss or expense (including, without limitation, reasonable attorney's fees and out-of-pocket expenses) arising in connection with any such claim for fees arising out of the issuance of the Securities pursuant to this Agreement.

3.24 No Directed Selling Efforts or General Solicitation. Neither the Company nor, to the Company's Knowledge, any Person acting on its behalf has conducted any general solicitation or general advertising (as those terms are used in Regulation D) in connection with the offer or sale of any of the Securities.

3.25 No Integrated Offering. Neither the Company nor any of its Affiliates, nor, to the Company's Knowledge, any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any Company security or solicited any offers to buy any security, under circumstances that would adversely affect reliance by the Company on Section 4(a)(2) under the Securities Act for the exemption from registration for the transactions contemplated hereby or would require registration of the Shares under the Securities Act or cause the offering of the Securities pursuant to the Transaction Documents to be integrated with prior offerings by the Company for purposes of any applicable law, regulation or stockholder approval provisions, including, without limitation, under the rules and regulations of any Trading Market on which the Common Stock is now listed or quoted. Assuming the satisfaction of all conditions set forth in Section 2.5(b), the sale and issuance of the Securities hereunder does not contravene the rules and regulation of any Trading Market on which the Common Stock is now listed or quoted.

3.26 Private Placement. Assuming the accuracy of the Purchasers' representations and warranties set forth in ARTICLE 4, no registration under the Securities Act is required for the offer and sale of the Securities by the Company to the Purchasers as contemplated hereby.

3.27 Investment Company. The Company is not and, after giving effect to the offering and sale of the Securities, will not be an "investment company," as such term is defined in the Investment Company Act of 1940, as amended.

3.28 Foreign Corrupt Practices. The Company, nor, to the best of the Company's Knowledge, any director, officer, agent, employee or other Person associated with or acting on behalf of the Company has (A) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (B) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (C) violated or is in violation of any provision of the FCPA; or (D) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment.

3.29 Indebtedness. Except as disclosed in the SEC Reports, the Company does not (i) have any outstanding Indebtedness (as defined below), (ii) is in violation of any term of or in default under any contract, agreement or instrument relating to any Indebtedness, except where such violations and defaults would not result, individually or in the aggregate, in a Material Adverse Effect, or (iii) is a party to any contract, agreement or instrument relating to any Indebtedness, the performance of which, in the judgment of the Company's officers, has or is expected to have a Material Adverse Effect. For purposes of this Agreement: (x) "Indebtedness" of any Person means, without duplication (A) all indebtedness for borrowed money, (B) all obligations issued, undertaken or assumed as the deferred purchase price of property or services (other than trade payables entered into in the ordinary course of business), (C) all reimbursement or payment obligations with respect to letters of credit, surety bonds and other similar instruments, (D) all obligations evidenced by notes, bonds, debentures or similar instruments, including obligations so evidenced incurred in connection with the acquisition of property, assets or businesses, (E) all indebtedness created or arising under any conditional sale or other title retention agreement, or incurred as financing, in either case with respect to any property or assets acquired with the proceeds of such indebtedness (even though the rights and remedies of the seller or bank under such agreement in the event of default are limited to repossession or sale of such property), (F) all monetary obligations under any leasing or similar arrangement which, in connection with generally accepted accounting principles, consistently applied for the periods covered thereby, is classified as a capital lease, (G) all indebtedness referred to in clauses (A) through (F) above secured by (or for which the holder of such Indebtedness has an existing right, contingent or otherwise, to be secured by) any mortgage, lien, pledge, charge, security interest or other encumbrance upon or in any property or assets (including accounts and contract rights) owned by any Person, even though the Person which owns such assets or property has not assumed or become liable for the payment of such indebtedness, and (H) all Contingent Obligations in respect of indebtedness or obligations of others of the kinds referred to in clauses (A) through (G) above; and (y) "Contingent Obligation" means, as to any Person, any direct or indirect liability, contingent or otherwise, of that Person with respect to any indebtedness, lease, dividend or other obligation of another Person if the primary purpose or intent of the Person incurring such liability, or the primary effect thereof, is to provide assurance to the obligee of such liability that such liability will be paid or discharged, or that any agreements relating thereto will be complied with, or that the holders of such liability will be protected (in whole or in part) against loss with respect thereto.

3.30 Regulation M Compliance. The Company has not, and to the Company's Knowledge no one 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 Securities, (ii) sold, bid for, purchased, or paid any compensation for soliciting purchases of, any of the Securities, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company.

3.31 Disclosure. No representation or warranty by the Company in this Agreement, including the Disclosure Schedules to this Agreement, if any, and no statement contained in the SEC Reports or any certificate or other document furnished or to be furnished to the Purchasers pursuant to this Agreement contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained therein, in light of the circumstances under which they were made, not misleading. The Company confirms that neither it nor any officers or directors has provided any Purchaser or its agents or counsel with any information that

constitutes or might constitute material, nonpublic information, other than with respect to the existence of, and the material terms and conditions of, the transactions contemplated by the Transaction Documents. The Company understands and confirms that each of the Purchasers will rely on the foregoing representations in effecting transactions in securities of the Company. The Company acknowledges and agrees that no Purchaser makes or has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in ARTICLE 4 hereof.

3.32 Registration Rights. Except as described in the SEC Reports, the Company has not granted or agreed to grant to any Person any rights (including “piggy-back” registration rights) to have any securities of the Company registered with the SEC or any other governmental authority. All such registration rights have either been satisfied or waived so that no Person shall have the right to demand the inclusion of any Company securities (other than the Securities to be issued hereunder) in the Registration Statement.

3.33 Listing and Maintenance Requirements. The Common Stock is registered pursuant to Section 12(b) or 12(g) 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 under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. Except as set forth in the SEC Reports, the Company has not, in the 12 months preceding the date hereof, received notice from any Trading Market on which the Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market. The Common Stock is currently eligible for electronic transfer through the Depository Trust Company or another established clearing corporation (except for any restricted shares of Common Stock) and the Company is current in payment of the fees to the Depository Trust Company (or such other established clearing corporation) in connection with such electronic transfer.

3.34 Transactions With Affiliates and Employees. Except as set forth in the SEC Reports, none of the officers or directors of the Company and, to the Company’s Knowledge, none of the employees of the Company is presently a party to any transaction with the Company (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 providing for the borrowing of money from or lending of money to, or otherwise requiring payments to or from any officer, director or such employee or, to the Company’s Knowledge, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee, stockholder, member or partner, in each case as such that would be disclosable under Item 404 of the Commission’s Regulation S-K, other than (i) for: (A) payment of salary or consulting fees for services rendered, (B) payment of cash retainers for non-employee directors, (C) reimbursement for expenses incurred on behalf of the Company and (D) other employee, consultant and non-employee director benefits, including equity compensation; and (ii) the transactions contemplated by the Transaction Documents.

3.35 Office of Foreign Assets Control. Neither the Company nor, to the Company’s knowledge, any director, officer, agent, employee or affiliate of the Company is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department (“OFAC”).

3.36 Money Laundering. The operations of the Company are and have been conducted at all times in compliance with applicable financial record-keeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, applicable money laundering statutes and applicable rules and regulations thereunder (collectively, the “Money Laundering Laws”), and no Action or Proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Money Laundering Laws is pending or, to the Company’s Knowledge, threatened.

3.37 Defense Protection Act. The Company represents and warrants that it does not engage in the design, fabrication, development, testing, production or manufacture of critical technologies within the meaning of the Defense Production Act of 1950, as amended, including all implementing regulations thereof (the “DPA”) and that it has no current intention of engaging in such activities in the future.

3.38 No Disqualification Events. With respect to the Securities to be offered and sold hereunder in reliance on Rule 506 under the Securities Act, none of the Company, any of its predecessors, any affiliated issuer,

any director, executive officer, other officer of the Company participating in the offering hereunder, any beneficial owner of 20% or more of the Company's outstanding voting equity securities, calculated on the basis of voting power, nor any promoter (as that term is defined in Rule 405 under the Securities Act) connected with the Company in any capacity at the time of sale (each, an "Issuer Covered Person" and, together, "Issuer Covered Persons") is subject to any of the "Bad Actor" disqualifications described in Rule 506(d)(1)(i) to (viii) under the Securities Act (a "Disqualification Event"), except for a Disqualification Event covered by Rule 506(d)(2) or (d)(3). The Company has exercised reasonable care to determine whether any Issuer Covered Person is subject to a Disqualification Event. The Company has complied, to the extent applicable, with its disclosure obligations under Rule 506(e), and has furnished to the Purchasers a copy of any disclosures provided thereunder.

3.39 Other Covered Persons. Other than the Placement Agent, the Company is not aware of any person (other than any Issuer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Securities.

3.40 Notice of Disqualification Events. The Company will notify the Purchasers and the Placement Agent in writing, prior to the Closing Date of (i) any Disqualification Event relating to any Issuer Covered Person and (ii) any event that would, with the passage of time, become a Disqualification Event relating to any Issuer Covered Person.

ARTICLE 4 REPRESENTATIONS AND WARRANTIES OF THE PURCHASERS

Each Purchaser, for itself and for no other Purchaser, hereby represents and warrants as of the date hereof and as of the Closing Date to the Company and to the Placement Agent as follows (unless as of a specific date therein):

4.1 Organization; Authority. Such Purchaser is either an individual or an entity duly incorporated or formed, validly existing and in good standing under the laws of the jurisdiction of its incorporation or formation with full right, corporate, partnership, limited liability company or similar power and authority to enter into and to consummate the transactions contemplated by the Transaction Documents and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of the Transaction Documents and performance by such Purchaser of the transactions contemplated by the Transaction Documents have been duly authorized by all necessary corporate, partnership, limited liability company or similar action, as applicable, on the part of such Purchaser. Each Transaction Document to which it is a party has been duly executed by such Purchaser, and when delivered by such Purchaser in accordance with the terms hereof, will constitute the valid and legally binding obligation of such Purchaser, enforceable against it in accordance with its terms, except: (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

4.2 Purchaser Status. At the time such Purchaser was offered the Securities, it was, and as of the date hereof it is, and on each date on which it exercises the Warrants it will be, an "accredited investor" as defined in Rule 501 under the Securities Act. Such Purchaser is not a broker-dealer registered under Section 15 of the Exchange Act. Such Purchaser is acting alone in its determination as to whether to invest in the Securities. Such Purchaser is not a party to any voting agreements or similar arrangements with respect to the Securities. Except as expressly disclosed in a Schedule 13D or Schedule 13G (or amendments thereto) filed by such Purchaser with the Commission with respect to the beneficial ownership of the Company's Common Stock, such Purchaser is not a member of a partnership, limited partnership, syndicate, or other group for the purpose of acquiring, holding, voting or disposing of the Securities. Each Purchaser represents and warrants that it (i) is not and will not become a party to (A) any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any Person as to how such Person, if serving as a director or if elected as a director of the Corporation, will act or vote on any issue or question (a "Voting Commitment") or (B) any Voting Commitment that could limit or interfere with

such Person's ability to comply, if serving as or elected as a director of the Company, with such Person's fiduciary duties under applicable law; (ii) is not and will not become a party to any agreement, arrangement or understanding with any Person other than the corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director of the Company.

4.3 Certain Transactions and Confidentiality. Other than consummating the transactions contemplated hereunder, such Purchaser has not, nor has any Person acting on behalf of or pursuant to any understanding with such Purchaser, directly or indirectly executed any purchases or sales, including Short Sales, of the securities of the Company during the period commencing as of the time that such Purchaser was first contacted by the Company, the Placement Agent or any other Person regarding the transactions contemplated hereby and ending immediately prior to the date hereof. Notwithstanding the foregoing, in the case of an Purchaser that is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Purchaser's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Purchaser's assets, the representation set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Shares covered by this Agreement. The Purchasers, its Affiliates and authorized representatives and advisors who are aware of the transactions contemplated by the Transaction Documents, maintained the confidentiality of all disclosures made to it in connection with such transactions (including the existence and terms of such transactions). Notwithstanding the foregoing, for avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, with respect to the identification of the availability of, or securing of, available shares to borrow in order to effect Short Sales or similar transactions in the future.

4.4 General Solicitation; Pre-Existing Relationship. Such Purchaser is not purchasing the Securities as a result of any advertisement, article, notice or other communication regarding the Securities published in any newspaper, magazine or similar media or broadcast over television or radio or presented at any seminar or any other general solicitation or general advertisement. Such Purchaser also represents that such Purchaser was contacted regarding the sale of the Units by the Company or the Placement Agent (or an authorized agent or representative of the Company or the Placement Agent) with which such Purchaser had a substantial pre-existing relationship.

4.5 Purchase Entirely for Own Account. The Securities to be received by such Purchaser hereunder will be acquired for such Purchaser's own account, not as nominee or agent, and not with a view to the resale or distribution of any part thereof in violation of the Securities Act, and such Purchaser has no present intention of selling, granting any participation in, or otherwise distributing the same in violation of the Securities Act without prejudice, however, to such Purchaser's right at all times to sell or otherwise dispose of all or any part of such Securities in compliance with applicable federal and state securities laws. Nothing contained herein shall be deemed a representation or warranty by such Purchaser to hold the Securities for any period of time.

4.6 Experience of Such Purchaser. Such Purchaser, either alone or together with its representatives, has such knowledge, sophistication and experience in business and financial matters so as to be capable of evaluating the merits and risks of the prospective investment in the Securities, and has so evaluated the merits and risks of such investment. Such Purchaser is able to bear the economic risk of an investment in the Securities and, at the present time, is able to afford a complete loss of such investment.

4.7 Disclosure of Information. Such Purchaser has had an opportunity to receive all information related to the Company requested by it and to ask questions of and receive answers from the Company and the Placement Agent regarding the Company, its business and the terms and conditions of the offering of the Securities. Such Purchaser acknowledges receipt of copies of the SEC Reports (or access thereto via EDGAR). Neither such inquiries nor any other due diligence investigation conducted by such Purchaser shall modify, limit or otherwise affect such Purchaser's right to rely on the Company's representations and warranties contained in this Agreement.

4.8 Placement Agent. Such Purchaser hereby acknowledges and agrees that it has independently evaluated the merits of its decision to purchase the Shares, and that (i) the Placement Agent is acting solely as placement agent in connection with the execution, delivery and performance of the Transaction Documents and is not acting as an underwriter or in any other capacity and is not and shall not be construed as a fiduciary for such Purchaser, the Company or any other Person in connection with the execution, delivery and performance of the Transaction Documents, and (ii) such Purchaser has not relied on the Placement Agent or its officers, directors,

employees, attorneys or Affiliates with respect to the negotiation, execution or performance of the Transaction Documents or any representation or warranty made in, in connection with, or as an inducement to the Transaction Documents.

4.9 Interested Stockholders. Each Purchaser that is an “Interested Stockholder” (as such term is defined in Section 203 of the General Corporation Law of the State of Delaware) represents and warrants that either (a) it has been an Interested Stockholder for at least three years prior to the date hereof or (b) the transaction that resulted in such Purchaser becoming an Interested Stockholder was approved by the Board of Directors or a duly authorized committee thereof.

4.10 Restricted Securities. Such Purchaser understands that the Securities are “restricted securities” and have not been registered under the Securities Act and may not be offered, resold, pledged or otherwise transferred except (i) pursuant to an exemption from registration under the Securities Act or pursuant to an effective registration statement in compliance with Section 5 under the Securities Act and (ii) in accordance with all applicable securities laws of the states of the United States and other jurisdictions.

4.11 No Rule 506 Disqualifying Activities. Such Purchaser has not taken any of the actions set forth in, and is not subject to, the disqualification provisions of Rule 506(d)(1) of the Securities Act.

4.12 Compliance. No part of the funds being used by such Purchaser to acquire the Securities has been, or shall be, directly or indirectly derived from, or related to, any activity that may contravene United States federal or state or non-United States laws or regulations.

4.13 Commissions. No Person will have, as a result of the transactions contemplated by the Transaction Documents, any valid right, interest or claim against the Company or upon any other Purchaser for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of such Purchaser. Such Purchaser shall pay, and hold the Company and each other Purchaser harmless against, any liability, loss or expense (including, without limitation, reasonable attorney’s fees and out-of-pocket expenses) arising in connection with any such claim for fees pursuant to any such agreement, arrangement or understanding entered into by or on behalf of such Purchaser.

4.14 Residency. Such Purchaser is a resident of or an entity organized under the jurisdiction specified below its address on Exhibit A hereto.

The Company acknowledges and agrees that the representations contained in ARTICLE 4 shall not modify, amend or affect such Purchaser’s right to rely on the Company’s representations and warranties contained in this Agreement or any representations and warranties contained in any other Transaction Document or any other document or instrument executed and/or delivered in connection with this Agreement or the consummation of the transaction contemplated hereby.

ARTICLE 5 REGISTRATION RIGHTS

5.1 Registration Statement.

(a) On or prior to the Initial Filing Deadline, the Company shall prepare and file with the Commission a Registration Statement covering the resale of all Registrable Securities for an offering to be made on a continuous basis pursuant to Rule 415. The Registration Statement shall be on Form S-3 (except if the Company is not then eligible to register for resale the Registrable Securities on Form S-3, in which case such registration shall be on another appropriate form in accordance with the Securities Act) and shall contain (except if otherwise required pursuant to written comments received from the Commission upon a review of such Registration Statement by the Commission) the “Plan of Distribution” in substantially the form attached hereto as Exhibit G. Notwithstanding any other provision of this ARTICLE 5, if the staff of the Commission does not permit all of the Registrable Securities to be registered on the initial Registration Statement filed pursuant to this Section 5.1(a) (the “Initial Registration Statement”) or requires any Purchaser to be named as an “underwriter”, then the Company shall use commercially

reasonable efforts to persuade the staff of the Commission that the offering contemplated by the Registration Statement is a valid secondary offering and not an offering “by or on behalf of the issuer” as defined in Rule 415 and that none of the Purchasers is an “underwriter”; provided, however, that in no event shall the Company be required to continue discussions with the staff of the Commission if the Company reasonably determines that doing so is reasonably likely to cause the Company to incur liquidated damages pursuant to Section 5.1(d) because of a failure to have the Initial Registration Statement declared effective prior to the Initial Effectiveness Deadline. In the event that, despite the Company’s commercially reasonable efforts to advocate with the Commission for the registration of all of the Registrable Securities in accordance with the SEC Guidance, including without limitation, Compliance and Disclosure Interpretation 612.09 and compliance with the terms of this Section 5.1(a), the staff of the Commission refuses to alter its position, the Company shall (i) remove from the Registration Statement such portion of the Registrable Securities (the “Cut Back Shares”) as determined below and/or (ii) agree to such restrictions and limitations on the registration and resale of the Registrable Securities as the staff of the Commission may require to assure the Company’s compliance with the requirements of Rule 415 (collectively, the “SEC Restrictions”); provided, however, that the Company shall not agree to name any Purchaser as an “underwriter” in such Registration Statement without the prior written consent of such Purchaser; provided, further, that if any such Purchaser refuses to be named as an underwriter as required by the SEC Restrictions, such Purchaser’s Registrable Securities shall be removed from the Initial Registration Statement and such Registrable Securities shall be deemed to constitute Cut Back Shares and the provisions of this Section 5.1(a) shall apply to such Cut Back Shares. Except as provided in the immediately preceding sentence, any cut-back imposed pursuant to this Section 5.1(a) shall be allocated among the Purchasers on a *pro rata* basis by (x) first removing Registrable Securities represented by Unit Shares on a *pro rata* basis based on the total number of unregistered Unit Shares held by such Purchasers and then (y) by removing Registrable Securities represented by Warrant Shares on a *pro rata* basis based on the total number of unregistered Warrant Shares held by such Purchasers, in each case unless the SEC Restrictions otherwise require or provide or the Purchasers otherwise agree. In the event of a cutback hereunder, the Company shall give the Holder at least three (3) Trading Days prior written notice along with the calculations as to such Holder’s allotment. In furtherance of the foregoing, each Purchaser shall promptly notify the Company when it has sold substantially all of its Registrable Securities covered by the Initial Registration Statement (or any Additional Registration Statement (as defined below)) so as to enable the Company to determine whether it can file one or more additional registration statements covering the Cut Back Shares and the Company agrees that it shall file one or more additional Registration Statements (each, an “Additional Registration Statement”) as promptly as possible, and in any event on or prior to the applicable Additional Filing Deadline, successively using its commercially reasonable efforts to register on each such Additional Registration Statement the maximum number of remaining Cut Back Shares that continue to constitute Registrable Securities until all of the Cut Back Shares that continue to constitute Registrable Securities have been registered with the SEC.

(b) The Company shall use its commercially reasonable efforts to cause each Registration Statement to be declared effective by the Commission as promptly as possible after the filing thereof, but in any event prior to the applicable Effectiveness Deadline, and shall use commercially reasonable efforts to keep the Registration Statement continuously effective under the Securities Act until the date that all Registrable Securities covered by such Registration Statement have been sold or can be sold publicly without restriction or limitation under Rule 144 (including, without limitation, the requirement to be in compliance with Rule 144(c)(1)) (the “Effectiveness Period”). Not later than two Trading Days after a Registration Statement is declared effective, the Company shall file a prospectus supplement for any Registration Statement to the extent required pursuant to Rule 424.

(c) The Company shall notify the Purchasers in writing promptly (and in any event within two Trading Days) after receiving notification from the Commission that a Registration Statement has been declared effective.

(d) Notwithstanding anything in this Agreement to the contrary, the Company may, by written notice to the Purchasers, suspend sales under a Registration Statement after the Effective Date thereof and/or require that the Purchasers immediately cease the sale of shares of Common Stock pursuant thereto and/or defer the filing of any Additional Registration Statement if the Company is engaged in a material merger, acquisition or sale or any other pending development that the Company believes may be material, and the Board of Directors determines in good faith, by appropriate resolutions, that, as a result of such activity, (A) it would be materially detrimental to the Company (other than as relating solely to the price of the Common Stock) to maintain a

Registration Statement at such time or (B) it is in the best interests of the Company to suspend sales under such registration at such time. Upon receipt of such notice, each Purchaser agrees to immediately discontinue any sales of Registrable Securities pursuant to such Registration Statement until such Purchaser is advised in writing by the Company that the current Prospectus or amended Prospectus, as applicable, may be used. In no event, however, shall this right be exercised to suspend sales beyond the period during which (in the good faith determination of the Board of Directors) the failure to require such suspension would be materially detrimental to the Company. The Company's rights under this Section 5.1(d) may be exercised for a period of no more than 20 Trading Days at a time with a subsequent permitted trading window of at least 90 Trading Days, and not more than two times in any twelve-month period. Immediately after the end of any suspension period under this Section 5.1(d), the Company shall take all necessary actions (including filing any required supplemental prospectus) to restore the effectiveness of the applicable Registration Statement and the ability of the Purchasers to publicly resell their Registrable Securities pursuant to such effective Registration Statement.

5.2 Registration Procedures. In connection with the Company's registration obligations hereunder, the Company shall:

(a) Not less than five Trading Days prior to the filing of a Registration Statement or any related Prospectus or any amendment or supplement thereto, furnish via email to those Purchasers or their counsels who have supplied the Company with email addresses copies of all such documents proposed to be filed, which documents (other than any document that is incorporated or deemed to be incorporated by reference therein) will be subject to the review of such Purchasers. The Company shall reflect in each such document when so filed with the Commission such comments regarding the Purchasers and the plan of distribution as the Purchasers may reasonably and promptly propose no later than two Trading Days after the Purchasers have been so furnished with copies of such documents as aforesaid.

(b) (i) Subject to Section 5.1(d), prepare and file with the Commission such amendments, including post-effective amendments, to each Registration Statement and the Prospectus used in connection therewith as may be necessary to keep the Registration Statement continuously effective, as to the applicable Registrable Securities for the Effectiveness Period and prepare and file with the Commission such additional Registration Statements in order to register for resale under the Securities Act all of the Registrable Securities; (ii) cause the related Prospectus to be amended or supplemented by any required Prospectus supplement, and as so supplemented or amended to be filed pursuant to Rule 424; and (iii) comply in all material respects with the provisions of the Securities Act and the Exchange Act with respect to the disposition of all Registrable Securities covered by the Registration Statement during the applicable period in accordance with the intended methods of disposition by the Purchasers thereof set forth in the Registration Statement as so amended or in such Prospectus as so supplemented.

(c) Notify the Purchasers as promptly as reasonably possible, and if requested by the Purchasers, confirm such notice in writing no later than two Trading Days thereafter, of any of the following events: (i) the Commission notifies the Company whether there will be a "review" of any Registration Statement; (ii) any Registration Statement or any post-effective amendment is declared effective; (iii) the Commission issues any stop order suspending the effectiveness of any Registration Statement or initiates any Proceedings for that purpose; (iv) the Company receives notice of any suspension of the qualification or exemption from qualification of any Registrable Securities for sale in any jurisdiction, or the initiation or threat of any Proceeding for such purpose; (v) the financial statements included in any Registration Statement become ineligible for inclusion therein; or (vi) the Company becomes aware that any Registration Statement or Prospectus or other document contains any untrue statement of a material fact or omits to state any 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.

(d) Use reasonable best efforts to avoid the issuance of or, if issued, obtain the withdrawal of (i) any order suspending the effectiveness of any Registration Statement, or (ii) any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any jurisdiction, as soon as possible.

(e) If requested by a Purchaser, provide such Purchaser, without charge, at least one conformed copy of each Registration Statement and each amendment thereto, including financial statements and

schedules, and all exhibits to the extent requested by such Person (including those previously furnished or incorporated by reference) promptly after the filing of such documents with the Commission; *provided*, that the Company shall have no obligation to provide any document pursuant to this clause that is available on the Commission's EDGAR system.

(f) Promptly deliver to each Purchaser, without charge, as many copies of the Prospectus or Prospectuses (including each form of prospectus) and each amendment or supplement thereto as such Persons may reasonably request. The Company hereby consents to the use of such Prospectus and each amendment or supplement thereto by each of the selling Purchasers in connection with the offering and sale of the Registrable Securities covered by such Prospectus and any amendment or supplement thereto to the extent permitted by federal and state securities laws and regulations.

(g) Prior to any resale of Registrable Securities by a Purchaser, use commercially reasonable best efforts to register or qualify or cooperate with the selling Purchasers in connection with the registration or qualification (or exemption from such registration or qualification) of such Registrable Securities for offer and sale under the securities or Blue Sky laws of such jurisdictions within the United States as any Purchaser requests in writing, to keep each such registration or qualification (or exemption therefrom) effective for so long as required, but not to exceed the duration of the Effectiveness Period, and to do any and all other acts or things reasonably necessary or advisable to enable the disposition in such jurisdictions of the Registrable Securities covered by a Registration Statement; provided, however, that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise so subject.

(h) Use reasonable best efforts to cause all Registrable Securities covered by a Registration Statement to be listed on the Trading Market;

(i) If requested by the Purchasers, cooperate with the Purchasers to facilitate the timely preparation and delivery of certificates representing Registrable Securities to be delivered to a transferee pursuant to a Registration Statement, which certificates shall be free, to the extent permitted by this Agreement and under law, of all restrictive legends, and to enable such Registrable Securities to be in such denominations and registered in such names as any such Purchasers may reasonably request.

(j) Upon the occurrence of any event described in Section 5.2(c)(iii)-(vi), as promptly as reasonably practicable, prepare a supplement or amendment, including a post-effective amendment, to the Registration Statement or a supplement to the related Prospectus or any document incorporated or deemed to be incorporated therein by reference, and file any other required document so that, as thereafter delivered, neither the Registration Statement nor such Prospectus will contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(k) It shall be a condition precedent to the obligations of the Company to complete the registration pursuant to this Agreement with respect to the Registrable Securities of any particular Purchaser that such Purchaser furnish to the Company a completed Selling Stockholder Questionnaire in the form proffered by the Company (the "Selling Stockholder Questionnaire") and such other information regarding itself, the Registrable Securities and other shares of Common Stock held by it and the intended method of disposition of the Registrable Securities held by it (if different from the Plan of Distribution set forth on Exhibit G hereto) as shall be reasonably required to effect the registration of such Registrable Securities and shall complete and execute such documents in connection with such registration as the Company may reasonably request.

(l) The Company shall comply with all applicable rules and regulations of the Commission under the Securities Act and the Exchange Act, including, without limitation, Rule 172 under the Securities Act, file any final Prospectus, including any supplement or amendment thereof, with the Commission pursuant to Rule 424 under the Securities Act, promptly inform the Purchasers in writing if, at any time during the Effectiveness Period, the Company does not satisfy the conditions specified in Rule 172 and, as a result thereof, the Purchasers are required to make available a Prospectus in connection with any disposition of Registrable Securities and take such other actions as may be reasonably necessary to facilitate the registration of the Registrable Securities hereunder.

(m) Not identify any Purchaser as an underwriter without its prior written consent in any public disclosure or filing with the Commission or any Trading Market and any Purchaser being deemed an underwriter by the Commission shall not relieve the Company of any obligations it has under this Agreement; provided, however, that the foregoing shall not prohibit the Company from including the disclosure found in the “Plan of Distribution” section attached hereto as Exhibit G in the Registration Statement. In addition, and notwithstanding anything to the contrary contained herein, if the Company has received a comment by the Commission requiring an Purchaser to be named as an underwriter in the Registration Statement (which notwithstanding the reasonable best efforts of the Company is not withdrawn by the Commission) and such Purchaser refuses to be named as an underwriter in the Registration Statement, such Purchaser’s Registrable Securities shall be removed from the Registration Statement, such Registrable Securities shall be deemed to constitute Cut Back Shares.

5.3 Registration Expenses. The Company shall pay all fees and expenses incident to the performance of or compliance with ARTICLE 5 of this Agreement by the Company, including without limitation (a) all registration and filing fees and expenses, including without limitation those related to filings with the Commission, any Trading Market, and in connection with applicable state securities or Blue Sky laws, (b) printing expenses (including without limitation expenses of printing certificates for Registrable Securities), (c) messenger, telephone and delivery expenses, (d) fees and disbursements of counsel for the Company, (e) fees and expenses of all other Persons retained by the Company in connection with the consummation of the transactions contemplated by this Agreement, (f) all listing fees to be paid by the Company to the Trading Market and (g) reasonable and reasonably-documented fees and disbursements, not to exceed \$15,000 in the aggregate, of one counsel for the Purchasers. In no event shall the Company be responsible for any underwriting, broker or similar fees or commissions of any Purchaser or, except to the extent provided for above or in the Transaction Documents, any legal fees or other costs of the Purchasers.

5.4 Indemnification.

(a) Indemnification by the Company. The Company shall, notwithstanding any termination of this Agreement, indemnify and hold harmless each Purchaser, the officers, directors, partners, members, agents and employees of each of them, each Person who controls any such Purchaser (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) and the officers, directors, partners, members, agents and employees of each such controlling Person, to the fullest extent permitted by applicable law, from and against any and all Losses, as incurred, arising out of or relating to any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any other law, including, without limitation, any state securities law, or any rule or regulation thereunder relating to the offer or sale of the Registrable Securities, any untrue or alleged untrue statement of a material fact contained in the Registration Statement, any Prospectus or in any amendment or supplement thereto, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or form of prospectus or supplement thereto, in the light of the circumstances under which they were made) not misleading, except to the extent, but only to the extent, that (A) such untrue statements, alleged untrue statements, omissions or alleged omissions are based solely upon information regarding such Purchaser furnished in writing to the Company by such Purchaser for use therein, or to the extent that such information relates to such Purchaser or such Purchaser’s proposed method of distribution of Registrable Securities and was reviewed and expressly approved by such Purchaser expressly for use in the Registration Statement, or (B) with respect to any Prospectus, if the untrue statement or omission of material fact contained in such Prospectus was corrected on a timely basis in the Prospectus, as then amended or supplemented, if such corrected prospectus was timely made available by the Company to the Purchaser, and the Purchaser seeking indemnity hereunder was advised in writing not to use the incorrect prospectus prior to the use giving rise to Losses.

(b) Indemnification by Purchasers. Each Purchaser shall, severally and not jointly, indemnify and hold harmless the Company, its directors, officers, agents and employees, each Person who controls the Company (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, agents or employees of such controlling Persons, to the fullest extent permitted by applicable law,

from and against all Losses (as determined by a court of competent jurisdiction in a final judgment not subject to appeal or review) arising solely out of any untrue statement of a material fact contained in the Registration Statement, any Prospectus, or any form of prospectus, or in any amendment or supplement thereto, or arising out of or relating to any omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or form of prospectus or supplement thereto, in the light of the circumstances under which they were made) not misleading, but only to the extent that such untrue statement or omission is contained in any information so furnished by such Purchaser in writing to the Company specifically for inclusion in such Registration Statement or such Prospectus or to the extent that (i) such untrue statements or omissions are based solely upon information regarding such Purchaser furnished to the Company by such Purchaser in writing expressly for use in the Registration Statement or Prospectus, or to the extent that such information relates to such Purchaser or such Purchaser's proposed method of distribution of Registrable Securities and was reviewed and expressly approved by such Purchaser expressly for use in the Registration Statement (it being understood that the information provided by the Purchaser to the Company in the Questionnaire and the Plan of Distribution set forth on Exhibit G, as the same may be modified by such Purchaser constitutes information reviewed and expressly approved by such Purchaser in writing expressly for use in the Registration Statement), such Prospectus or such form of Prospectus or in any amendment or supplement thereto. In no event shall the liability of any selling Purchaser hereunder be greater in amount than the dollar amount of the net proceeds received by such Purchaser upon the sale of the Registrable Securities giving rise to such indemnification obligation.

(c) Conduct of Indemnification Proceedings. If any Proceeding shall be brought or asserted against any Person entitled to indemnity hereunder (an "Indemnified Party"), such Indemnified Party shall promptly notify the Person from whom indemnity is sought (the "Indemnifying Party") in writing, and the Indemnifying Party shall assume the defense thereof, including the employment of counsel reasonably satisfactory to the Indemnified Party and the payment of all fees and expenses incurred in connection with defense thereof; provided, that the failure of any Indemnified Party to give such notice shall not relieve the Indemnifying Party of its obligations or liabilities pursuant to this Agreement, except (and only) to the extent that it shall be finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) that such failure shall have proximately and materially adversely prejudiced the Indemnifying Party.

An Indemnified Party shall have the right to employ separate counsel in any such Proceeding and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party or Parties unless: (i) the Indemnifying Party has agreed in writing to pay such fees and expenses; or (ii) the Indemnifying Party shall have failed within 15 days of receiving notification of a Proceeding from an Indemnified Party to assume the defense of such Proceeding and to employ counsel reasonably satisfactory to such Indemnified Party in any such Proceeding; (iii) any counsel engaged by the applicable Indemnifying Party shall fail to timely commence or diligently conduct the defense of any such claim and such failure has materially prejudiced (or, in the reasonable judgment of the Indemnified Party, is in danger of materially prejudicing) the outcome of the applicable claim; or (iv) such Indemnified Party shall have been advised by counsel that a conflict of interest is likely to or may exist between the applicable Indemnifying Party and Indemnified Party or that there may be one or more different or additional defenses, claims, counterclaims or causes of action available to such Indemnified Party (in which case, if such Indemnified Party notifies the Indemnifying Party in writing that it elects to employ separate counsel at the expense of the Indemnifying Party, the Indemnifying Party shall not have the right to assume the defense thereof and the reasonable fees and expenses of separate counsel shall be at the expense of the Indemnifying Party). It being understood, however, that the Indemnifying Party shall not, in connection with any one such Proceeding (including separate Proceedings that have been or will be consolidated before a single judge) be liable for the fees and expenses of more than one separate firm of attorneys at any time for all Indemnified Parties, which firm shall be appointed by a majority of the Indemnified Parties. The Indemnifying Party shall not be liable for any settlement of any such Proceeding effected without its written consent, which consent shall not be unreasonably withheld. No Indemnifying Party shall, without the prior written consent of the Indemnified Party, effect any settlement of any pending Proceeding in respect of which any Indemnified Party is a party, unless such settlement includes an unconditional release of such Indemnified Party from all liability on claims that are the subject matter of such Proceeding.

All reasonable fees and expenses of the Indemnified Party (including reasonable fees and expenses to the extent incurred in connection with investigating or preparing to defend such Proceeding in a manner not inconsistent with this Section) shall be paid to the Indemnified Party, as incurred, within 20 Trading Days of written

notice thereof to the Indemnifying Party (regardless of whether it is ultimately determined that an Indemnified Party is not entitled to indemnification hereunder; provided, that the Indemnifying Party may require such Indemnified Party to undertake to reimburse all such fees and expenses to the extent it is finally judicially determined (not subject to appeal) that such Indemnified Party is not entitled to indemnification hereunder).

(d) Contribution. If a claim for indemnification under Section 5.4(a) or (b) is unavailable to an Indemnified Party (by reason of public policy or otherwise), then each Indemnifying Party, in lieu of indemnifying such Indemnified Party, shall contribute to the amount paid or payable by such Indemnified Party as a result of such Losses, in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and Indemnified Party in connection with the actions, statements or omissions that resulted in such Losses as well as any other relevant equitable considerations. The relative fault of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission of a material fact, has been taken or made by, or relates to information supplied by, such Indemnifying Party or Indemnified Party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action, statement or omission. The amount paid or payable by a party as a result of any Losses shall be deemed to include, subject to the limitations set forth in Section 5.4(c), any reasonable attorneys' or other reasonable fees or expenses incurred by such party in connection with any Proceeding to the extent such party would have been indemnified for such fees or expenses if the indemnification provided for in this Section was available to such party in accordance with its terms.

The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 5.4(d) were determined by *pro rata* allocation or by any other method of allocation that does not take into account the equitable considerations referred to in the immediately preceding paragraph. Notwithstanding the provisions of this Section 5.4(d), no Purchaser shall be required to contribute, in the aggregate, any amount in excess of the amount by which the proceeds actually received by such Purchaser from the sale of the Registrable Securities subject to the Proceeding exceeds the amount of any damages that such Purchaser has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation.

The indemnity and contribution agreements contained in this Section are in addition to any liability that the Indemnifying Parties may have to the Indemnified Parties, including pursuant to Section 6.6 hereof.

5.5 Dispositions. Each Purchaser agrees that it will comply with the prospectus delivery requirements of the Securities Act as applicable to it in connection with sales of Registrable Securities pursuant to the Registration Statement and shall sell its Registrable Securities that it sells pursuant to the Registration Statement in accordance with the Plan of Distribution set forth in the Prospectus. Each Purchaser further agrees that, upon receipt of a notice from the Company of the occurrence of any event of the kind described in Section 5.2(c)(iii)-(vi), such Purchaser will discontinue disposition of such Registrable Securities under the Registration Statement until such Purchaser is advised in writing by the Company that the use of the Prospectus, or amended Prospectus, as applicable, may be used. The Company may provide appropriate stop orders to enforce the provisions of this paragraph. Each Purchaser, severally and not jointly with the other Purchasers, agrees that the removal of the restrictive legend from certificated or uncertificated Shares as set forth in the Section 6.1 is predicated upon the Company's reliance that the Purchaser will comply with the provisions of this subsection.

5.6 No Piggyback on Registrations. Neither the Company nor any of its security holders (other than the Purchasers in such capacity pursuant hereto) may include securities of the Company in the Registration Statement other than the Registrable Securities. The Company shall not file any other registration statements, other than any registration statements on Form S-4 or Form S-8 (each as promulgated under the Securities Act), prior to the Effective Date of the Initial Registration Statement, *provided* that this Section 5.6 shall not prohibit the Company from filing amendments to registration statements filed prior to the date of this Agreement.

5.7 Amendments; Waivers. Notwithstanding anything in this Agreement to the contrary, the provisions of this ARTICLE 5 may be amended or waived (either generally or in a particular instance, either retroactively or prospectively and either for a specified period of time or indefinitely), with the written consent of (i) the Company and (ii) the Purchaser or Purchasers holding at least a majority of the then outstanding Registrable

Securities. Notwithstanding the foregoing, a waiver or consent to depart from the provisions of this ARTICLE 5 with respect to a matter that relates exclusively to the rights of Purchasers and that does not directly or indirectly affect the rights of other Purchasers may be given by Purchasers of all of the Registrable Securities to which such waiver or consent relates; provided, however, that the provisions of this sentence may not be amended, modified or supplemented except in accordance with the provisions of the immediately preceding sentence.

ARTICLE 6 OTHER AGREEMENTS OF THE PARTIES

6.1 Transfer Restrictions.

(a) The Securities may only be disposed of in compliance with state and federal securities laws, and each Purchaser agrees that it will sell, transfer or otherwise dispose of the Securities only in compliance with all applicable state and federal securities laws, and, as applicable, in accordance with the requirements of Section 5.5 hereof. In connection with any transfer of Securities other than pursuant to an effective registration statement under the Securities Act or Rule 144, to the Company or to an Affiliate of a Purchaser, the Company may require the transferor thereof to provide to the Company an opinion of counsel selected by the transferor and reasonably acceptable to the Company, the form and substance of which opinion shall be reasonably satisfactory to the Company, to the effect that such transfer does not require registration of such transferred Securities under the Securities Act.

(b) The Purchasers agree to the imprinting, so long as is required by this Section 6.1, of a legend on any of the Securities, whether in certificated or uncertificated form, in substantially the following forms, as applicable:

NEITHER THIS WARRANT, NOR THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT (COLLECTIVELY, THE "SECURITIES"), HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR UNDER ANY STATE SECURITIES OR BLUE SKY LAWS. THE SECURITIES ARE SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AND RESALE AND MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED EXCEPT AS PERMITTED UNDER THE SECURITIES ACT AND APPLICABLE STATE SECURITIES OR BLUE SKY LAWS, PURSUANT TO REGISTRATION OR QUALIFICATION OR EXEMPTION THEREFROM. INVESTORS SHOULD BE AWARE THAT THEY MAY BE REQUIRED TO BEAR THE FINANCIAL RISKS OF THIS INVESTMENT FOR AN INDEFINITE PERIOD OF TIME. THE COMPANY MAY REQUIRE AN OPINION OF COUNSEL IN FORM AND SUBSTANCE REASONABLY SATISFACTORY TO THE COMPANY TO THE EFFECT THAT ANY PROPOSED TRANSFER IS IN COMPLIANCE WITH THE SECURITIES ACT AND ANY APPLICABLE STATE SECURITIES OR BLUE SKY LAWS. THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN "ACCREDITED INVESTOR" AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT OR OTHER LOAN SECURED BY SUCH SECURITIES.

THIS SECURITY HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR UNDER ANY STATE SECURITIES OR BLUE SKY LAWS. THIS SECURITY IS SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AND RESALE AND MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED EXCEPT AS PERMITTED UNDER THE SECURITIES ACT AND APPLICABLE STATE SECURITIES OR BLUE SKY LAWS, PURSUANT TO REGISTRATION OR QUALIFICATION OR EXEMPTION THEREFROM. INVESTORS SHOULD BE AWARE THAT THEY MAY BE REQUIRED TO BEAR THE FINANCIAL RISKS OF THIS INVESTMENT FOR AN INDEFINITE PERIOD OF TIME. THE COMPANY MAY REQUIRE AN OPINION OF COUNSEL IN FORM AND SUBSTANCE REASONABLY SATISFACTORY TO THE COMPANY TO THE EFFECT THAT ANY

PROPOSED TRANSFER IS IN COMPLIANCE WITH THE SECURITIES ACT AND ANY APPLICABLE STATE SECURITIES OR BLUE SKY LAWS. THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN “ACCREDITED INVESTOR” AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT OR OTHER LOAN SECURED BY SUCH SECURITIES.

The Company acknowledges and agrees that a Purchaser may from time to time pledge pursuant to a bona fide margin agreement with a registered broker-dealer or grant a security interest in some or all of the Securities to a financial institution that is an “accredited investor” as defined in Rule 501(a) under the Securities Act and, if required under the terms of such arrangement, such Purchaser may transfer pledged or secured Securities to the pledgees or secured parties. Such a pledge or transfer would not be subject to approval of the Company and no legal opinion of legal counsel of the pledgee, secured party or pledgor shall be required in connection therewith. Further, no notice shall be required of such pledge. At the applicable Purchaser’s expense, the Company will, subject to Section 8.6 hereof, execute and deliver such reasonable documentation as a pledgee or secured party of Securities may reasonably request in connection with a pledge or transfer of the Securities, including, if the Securities are subject to registration pursuant to ARTICLE 5, the preparation and filing of any required prospectus supplement under Rule 424(b)(3) under the Securities Act or other applicable provision of the Securities Act to appropriately amend the list of Selling Stockholders thereunder; provided, however, that nothing in this provision will require the Company to post-effectively amend any Registration Statement to amend the list of Selling Stockholders included therein.

(c) Instruments, whether certificated or uncertificated, evidencing the Unit Shares and Warrant Shares shall not contain any legend (including the legend set forth in Section 6.1(b) hereof), (i) while a registration statement (including the Registration Statement) covering the resale of such security is effective under the Securities Act, (ii) if such Unit Shares or Warrant Shares are eligible for sale under Rule 144, without the requirement for the Company to be in compliance with the current public information required under Rule 144 as to such Unit Shares and Warrant Shares and without volume or manner-of-sale restrictions, (iii) following any sale of such Unit Shares or Warrant Shares pursuant to Rule 144 or (iv) if such legend is not required under applicable requirements of the Securities Act (including judicial interpretations and pronouncements issued by the staff of the Commission). Upon request by any Purchaser, following such time as a legend is no longer required under this Section 6.1(c), the Company shall cause its counsel to issue a legal opinion to the Transfer Agent (if required by the Transfer Agent) to effect the removal of the legend hereunder from any Shares. If all or any portion of a Warrant is exercised at a time when there is an effective registration statement to cover the resale of the Warrant Shares, or if the Warrant Shares issuable upon exercise of such Warrant may be sold under Rule 144 without limitation or restriction and the Company is then in compliance with the current public information required under Rule 144, or if such Warrant Shares may be sold under Rule 144 without limitation or restriction and without the requirement for the Company to be in compliance with the current public information required under Rule 144 as to such Warrant Shares or if such legend is not otherwise required under applicable requirements of the Securities Act (including judicial interpretations and pronouncements issued by the staff of the Commission) then such Warrant Shares shall be issued free of all legends. The Company agrees that following such time as a legend is no longer required under this Section 6.1(c), no later than three Trading Days following the delivery by a Purchaser to the Company of all of (i) an instrument, whether certificated or uncertificated, representing Unit Shares or Warrant Shares, as the case may be, issued with a restrictive legend, (ii) a written request addressed to the Company that such restrictive legend be removed, (iii) customary broker and representation letters in form and substance reasonably satisfactory to the Company and (iv) with respect to a legend removal request in reliance upon the availability of Rule 144, such further information as may be reasonably required by the Company and its counsel that provides reasonable assurance that such Unit Shares or Warrant Shares may be sold, assigned or transferred pursuant to Rule 144 as of the date in question (the date that all of such foregoing information and documentation is delivered to the Company by a Purchaser, the “Removal Request Date” and such third Trading Day thereafter, the “Legend Removal Date”), the Company will deliver or cause to be delivered to such Purchaser an instrument, certificated or uncertificated as directed by such Purchaser, representing such Shares that is free from all restrictive and other legends. The Company may not make any notation on its records or give instructions to the Transfer Agent that enlarge the restrictions on transfer set forth in this Section 6.1(c). Securities subject to legend removal hereunder shall, unless otherwise directed by a Purchaser, be transmitted by the Transfer Agent to the Purchaser by crediting the account of the Purchaser’s prime broker with the Depository Trust Company System as directed by such Purchaser.

(d) In addition to a Purchaser's other available remedies, if the Company shall fail for any reason (other than failure of such Purchaser to comply with the provisions set forth in this Section 6.1) to deliver any Shares without a restrictive legend by the Legend Removal Date, and if on or after the Legend Removal Date such Purchaser purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by such Purchaser of any portion of such Shares that such Purchaser anticipated receiving without legend by the Legend Removal Date (a "Buy-In"), then the Company shall, within two (2) Trading Days after such Purchaser's request and in such Purchaser's discretion, either: (i) pay cash to such Purchaser in an amount equal to such Purchaser's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased by such Purchaser (the "Buy-In Price"), at which point the Company's obligation to deliver such unlegended Shares shall terminate, or (ii) promptly honor its obligation to deliver to such Purchaser such unlegended Shares as provided above and pay cash to such Purchaser in an amount equal to the excess (if any) of the Buy-In Price over the product of (A) such number of Shares, times (B) the closing price on the Principal Trading Market of one share of Common Stock as of the Removal Request Date.

6.2 Furnishing of Information; Public Information. In order to enable the Purchasers to sell Shares under Rule 144, for a period of one year from the Closing, the Company covenants to use commercially reasonable efforts to timely file (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by the Company after the date hereof pursuant to Section 13(a) or 15(d) of the Exchange Act. During such one year period, if the Company is not required to file reports pursuant to Section 13(a) or 15(d) of the Exchange Act, it will prepare and furnish to the Holders and make publicly available in accordance with Rule 144(c) promulgated under the Securities Act annual and quarterly financial statements, together with a discussion and analysis of such financial statements in form and substance substantially similar to those that would otherwise be required to be included in reports required by Section 13(a) or 15(d) of the Exchange Act, as well as any other information required thereby, in the time period that such filings would have been required to have been made under the Exchange Act.

6.3 Integration. The Company shall not sell, offer for sale or solicit offers to buy or otherwise negotiate in respect of any security (as defined in Section 2 of the Securities Act) that would be integrated with the offer or sale of the Securities in a manner that would require the registration under the Securities Act of the sale of the Securities or that would be integrated with the offer or sale of the Securities for purposes of the rules and regulations of Nasdaq such that it would require shareholder approval prior to the closing of such other transaction unless shareholder approval is obtained before the closing of such subsequent transaction. The Purchasers shall take no action to become a group such that any transactions contemplated by this Agreement would require shareholder approval prior to Closing.

6.4 Securities Laws Disclosure; Publicity. The Company shall (a) by 4:15 p.m. (New York City time) on the Trading Day immediately following the date hereof, issue a press release disclosing the material terms of the transactions contemplated hereby, and (b) file a Current Report on Form 8-K, including the Transaction Documents as exhibits thereto, with the Commission within the time required by the Exchange Act. Each Purchaser, severally and not jointly with the other Purchasers, covenants that until such time as the transactions contemplated by this Agreement are publicly disclosed by the Company as described in this Section 6.4, such Purchaser will maintain the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction), except that such Purchaser may disclose the terms to its financial, accounting, legal and other advisors. From and after the issuance of such press release, the Company represents to the Purchasers that it shall have publicly disclosed all material, non-public information delivered to any of the Purchasers by the Company or any of its officers, directors, employees or agents in connection with the transactions contemplated by the Transaction Documents. In addition, effective upon the issuance of such press release, the Company acknowledges and agrees that any and all confidentiality or similar obligations under any agreement, whether written or oral, between the Company or any of its officers, directors, agents, employees or Affiliates on the one hand, and any of the Purchasers or any of their Affiliates on the other hand, shall terminate. Notwithstanding the foregoing, the Company shall not publicly disclose the name of any Purchaser, or include the name of any Purchaser in any filing with the Commission or any regulatory agency or Trading Market, without the prior written consent of such Purchaser, except: (a) as required by federal securities laws in connection with (i) any Registration Statement contemplated by this Agreement and (ii) the filing of final Transaction Documents with the Commission and (b) to the extent such disclosure is required by law or Trading Market regulations, in which case the Company shall provide the Purchasers with prior notice of such disclosure permitted under this clause (b).

6.5 Use of Proceeds. The Company shall use the net proceeds from the sale of the Securities hereunder for funding research and development and its other operations, or for working capital and other general corporate purposes, and shall not use any such proceeds in violation of FCPA or OFAC regulations.

6.6 Indemnification of Purchasers. Subject to the provisions of this Section 6.6, the Company will indemnify and hold each Purchaser and its directors, officers, shareholders, members, partners, employees and agents (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title), each Person who controls such Purchaser (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, shareholders, agents, members, partners or employees (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title) of such controlling Persons (each, a "Purchaser Party") harmless from any and all Losses that any such Purchaser Party may suffer or incur as a result of or relating to (a) any breach of any of the representations, warranties, covenants or agreements made by the Company in this Agreement or in the other Transaction Documents or (b) any action instituted against the Purchaser Parties in any capacity, or any of them or their respective Affiliates, by any stockholder of the Company who is not an Affiliate of such Purchaser Parties, with respect to any of the transactions contemplated by the Transaction Documents (unless such action is based upon a breach of such Purchaser Party's representations, warranties or covenants under the Transaction Documents or any agreements or understandings such Purchaser Parties may have with any such stockholder or any violations by such Purchaser Parties of state or federal securities laws or any conduct by such Purchaser Parties which constitutes fraud, gross negligence, willful misconduct or malfeasance of such Purchaser Party). If any action shall be brought against any Purchaser Party in respect of which indemnity may be sought pursuant to this Agreement, such Purchaser Party 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 Purchaser Party. Any Purchaser Party 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 Purchaser Party 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 counsel, a material conflict on any material issue between the position of the Company and the position of such Purchaser Party, in which case the Company shall be responsible for the reasonable fees and expenses of no more than one such separate counsel. The Company will not be liable to any Purchaser Party under this Agreement (y) for any settlement by a Purchaser Party effected without the Company's prior written consent, which shall not be unreasonably withheld or delayed; or (z) to the extent, but only to the extent that a loss, claim, damage or liability is attributable to any Purchaser Party's breach of any of the representations, warranties, covenants or agreements made by such Purchaser Party in this Agreement or in the other Transaction Documents. No Purchaser shall be liable for the indemnification obligations of any other Purchaser and no Purchaser's liability shall exceed the purchase price paid for the Securities pursuant to this Agreement. The indemnification required by this Section 6.6 shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as and when bills are received or are incurred. The indemnity agreements contained herein shall be in addition to any cause of action or similar right of any Purchaser Party against the Company or others and any liabilities the Company may be subject to pursuant to law.

6.7 Reservation of Common Stock. The Company has reserved and the Company shall continue to reserve and keep available at all times, free of preemptive rights, a sufficient number of shares of Common Stock for the purpose of enabling the Company to (i) issue the Unit Shares pursuant to this Agreement and (ii) to issue the Warrant Shares upon exercise of the Warrants (the "Required Minimum"). If, on any date, the number of authorized but unissued (and otherwise unreserved) shares of Common Stock is less than the Required Minimum on such date, then, not later than the Company's next annual meeting of stockholders occurring on or after the 60th day following such date, the Board of Directors shall use its best efforts to amend the Company's certificate of incorporation to increase the number of authorized but unissued shares of Common Stock to at least the Required Minimum at such time.

6.8 Listing of Common Stock. In the time and manner required by the Principal Trading Market, the Company shall prepare and file (or shall have prepared and filed) with such Trading Market an additional shares listing application covering all of the Shares and shall use its commercially reasonable efforts to take all steps necessary to maintain, so long as any other shares of Common Stock shall be so listed, such listing or if no longer listed on the Principal Trading Market, shall use its commercially reasonable efforts to take all steps necessary to

maintain a listing on another Trading Market. The Company will then use its commercially reasonable efforts to continue the listing or quotation and trading of its Common Stock on a Trading Market and will comply in all material respects with the Company's reporting, filing and other obligations under the bylaws or rules of the Trading Market. In addition, the Purchasers and the Company agree to cooperate in good faith, if necessary, to restructure the transactions contemplated by the Transaction Documents such that they do not contravene the rules and regulations of Nasdaq; provided, however, that such restructuring does not impact the economic interests of the Purchasers contemplated by the Transaction Documents. Each Purchaser agrees to provide information reasonably requested by the Company to comply with this Section 6.8 and Section 3.21. The provisions of Sections 6.8 shall terminate and be of no further force and effect upon the expiration of the Effectiveness Period.

6.9 Equal Treatment of Purchasers. No consideration (including any modification of any Transaction Document) shall be offered or paid to any Person to amend or consent to a waiver or modification of any provision of this Agreement unless the same consideration is also offered to all of the parties to this Agreement. For clarification purposes, this provision constitutes a separate right granted to each Purchaser by the Company and negotiated separately by each Purchaser, and is intended for the Company to treat the Purchasers as a class and shall not in any way be construed as the Purchasers acting in concert or as a group with respect to the purchase, disposition or voting of Securities or otherwise.

6.10 Form D; Blue Sky Filings. The Company agrees to timely file a Form D with respect to the Securities as required under Regulation D and to provide a copy thereof, promptly upon request of any Purchaser. The Company shall take such action as the Company shall reasonably determine is necessary in order to obtain an exemption for, or to qualify the Securities for, sale to the Purchasers at the Closing under applicable securities or "Blue Sky" laws of the states of the United States, and shall provide evidence of such actions promptly upon request of any Purchaser. Each Purchaser shall provide any information reasonably requested by the Company to comply with Section 6.10.

6.11 Acknowledgment of Dilution. The Company acknowledges that the issuance of the Securities may result in dilution of the outstanding shares of Common Stock, which dilution may be substantial under certain market conditions. The Company further acknowledges that its obligations under the Transaction Documents, including, without limitation, its obligation to issue the Unit Shares and Warrant Shares pursuant to the Transaction Documents, are unconditional and absolute and not subject to any right of set off, counterclaim, delay or reduction, regardless of the effect of any such dilution or any claim the Company may have against any Purchaser and regardless of the dilutive effect that such issuance may have on the ownership of the other stockholders of the Company.

6.12 Non-Public Information. The Company covenants and agrees that neither it, nor any other Person acting on its behalf will provide any Purchaser or its agents or counsel with any information that constitutes, or the Company reasonably believes constitutes, material non-public information after the date hereof, unless prior thereto such Purchaser shall have consented to the receipt of such information and agreed with the Company to keep such information confidential. The Company understands and confirms that each Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company. To the extent that the Company delivers any material, non-public information to a Purchaser without such Purchaser's consent, the Company hereby covenants and agrees that such Purchaser shall not have any duty of confidentiality to the Company or any of its officers, directors, agents, employees or Affiliates, or a duty to the Company, or any of its respective officers, directors, agents, employees or Affiliates not to trade on the basis of, such material, non-public information, provided that the Purchaser shall remain subject to applicable law. The Company understands and confirms that each Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company.

6.13 Acknowledgment Regarding Purchaser's Trading Activity. Anything in this Agreement or elsewhere herein to the contrary notwithstanding (except for Section 4.3), it is understood and acknowledged by the Company that: (i) none of the Purchasers has been asked by the Company to agree, nor has any Purchaser agreed, to desist from purchasing or selling, long and/or short, securities of the Company, or "derivative" securities based on securities issued by the Company or to hold the Securities for any specified term, (ii) past or future open market or other transactions by any Purchaser, specifically including, without limitation, Short Sales or "derivative" transactions, before or after the closing of this or future private placement transactions, may negatively impact the market price of the Company's publicly-traded securities, (iii) any Purchaser, and counter-parties in "derivative"

transactions to which any such Purchaser is a party, directly or indirectly, may presently have a “short” position in the Common Stock and (iv) each Purchaser shall not be deemed to have any affiliation with or control over any arm’s length counter-party in any “derivative” transaction. The Company further understands and acknowledges that (y) one or more Purchasers may engage in hedging activities at various times during the period that the Securities are outstanding, and (z) such hedging activities (if any) could reduce the value of the existing stockholders’ equity interests in the Company at and after the time that the hedging activities are being conducted. Except as contemplated by Section 4.3 hereof, Company acknowledges that such aforementioned hedging activities do not constitute a breach of any of the Transaction Documents.

6.14 Other Actions. Except as otherwise set forth in this Agreement, from the date of this Agreement until the earlier to occur of the Closing or the termination of this Agreement in accordance with the terms hereof, the Company and the Purchasers shall not, and shall not permit any of their respective Affiliates to, take, or agree or commit to take, any action that would reasonably be expected to, individually or in the aggregate, prevent, materially delay or materially impede the consummation of the transactions contemplated by this Agreement.

6.15 Board Seat. Effective as of the Closing Date, the Company shall have appointed Andrew Sinclair, Ph.D., as a designee of Abingworth, to the Company’s Board of Directors. Thereafter, from the Closing Date, and for as long as Abingworth holds at least five percent (5%) of the Company’s issued and outstanding Common Stock, the Company will nominate and use its commercially reasonable efforts (including, without limitation, soliciting proxies for the Abingworth’s designee to the same extent as it does for any of its other nominees to the Board of Directors) to have one (1) individual designated by Abingworth elected to the Board of Directors. Subject to compliance with any Trading Market’s rules on which the Common Stock is listed or quoted for trading on the date in question, for as long as Abingworth is entitled to appoint one persons to the Board of Directors, the Company shall appoint Abingworth’s designee to serve on such committees of the Board of Directors as shall exist from time to time as requested by Abingworth or the designee of Abingworth . If at any time Abingworth (i) shall hold less than 5% of the Company’s issued and outstanding Common Stock, and (ii) shall have a designee serving as a member of the Board of Directors, then, upon the request of the Company, such designee shall decline nomination for re-election at the next annual meeting of the Company’s stockholders.

6.16 Subsequent Equity Sales. From the date hereof until the later of (i) ninety (90) days following the Closing Date and (ii) thirty (30) days after the Effective Date, neither the Company nor any subsidiary of the Company shall issue shares of Common Stock or securities convertible into or exchangeable for Common Stock; *provided, however*, the thirty (30) day period set forth in this Section 6.15 shall be extended for the number of Trading Days during such period in which (i) trading in the Common Stock is suspended by any Trading Market, or (ii) following the Effective Date, the Registration Statement is not effective or the prospectus included in the Registration Statement may not be used by the Purchasers for the resale of the Securities. Notwithstanding anything to the contrary contained herein, the foregoing restriction shall not apply to (a) securities required to be issued pursuant to contractual obligations of the Company in effect as of the date of this Agreement, (b) equity securities issued or issuable pursuant to employee benefit or purchase plans in effect as of the date of this Agreement or pursuant to bona fide employee benefit or purchase plans established during the period described in the first sentence of this Section 6.14, (c) the issuance of up to that number of shares equal to fifteen (15) percent of the Company’s outstanding shares of Common Stock, calculated following the sale of the Securities hereunder, in connection with mergers or acquisitions of businesses, entities, property or other assets, joint ventures or strategic alliances, or (d) securities issued by Capnia, Inc., a consolidated partially-owned subsidiary of the Company, for the purpose of funding Capnia, Inc.’s separate medical device business.

6.17 Defense Protection Act. To the extent that the Company engages in the design, fabrication, development, testing, production or manufacture of critical technologies within the meaning of the DPA, whether because of a new categorization of technology by the U.S. government or otherwise, the Company shall immediately provide notice to Abingworth.

**ARTICLE 7
TERMINATION**

7.1 Termination. The obligations of the Company, on the one hand, and the Purchasers, on the other hand, to effect the Closing shall terminate as follows:

(a) Upon the mutual written consent of the Company and the Purchasers;

(b) By the Company if any of the conditions set forth in Section 2.5(a) shall have become incapable of fulfillment, and shall not have been waived by the Company;

(c) By a Purchaser (with respect to itself only) if any of the conditions set forth in Section 2.5(b) shall have become incapable of fulfillment, and shall not have been waived by such Purchaser; or

(d) By either the Company or any Purchaser (with respect to itself only) if the Closing has not occurred on or prior to January 15, 2019;

provided, however, that, except in the case of clause (a) above, the party seeking to terminate its obligation to effect the Closing shall not then be in breach of any of its representations, warranties, covenants or agreements contained in this Agreement or the other Transaction Documents if such breach has resulted in the circumstances giving rise to such party's seeking to terminate its obligation to effect the Closing.

7.2 Notice of Termination; Effect of Termination. In the event of termination by the Company or any Purchaser of its obligations to effect the Closing pursuant to this ARTICLE 7, written notice thereof shall forthwith be given to the other Purchasers by the Company and the other Purchasers shall have the right to terminate their obligations to effect the Closing upon written notice to the Company and the other Purchasers. Nothing in this ARTICLE 7 shall be deemed to release any party from any liability for any breach by such party of the terms and provisions of this Agreement or the other Transaction Documents or to impair the right of any party to compel specific performance by any other party of its obligations under this Agreement or the other Transaction Documents. For the avoidance of doubt, the obligation to reimburse Abingworth's documented expenses, including reasonable expenses of counsel, pursuant to Section 8.1 shall survive the termination of this Agreement.

**ARTICLE 8
MISCELLANEOUS**

8.1 Fees and Expenses. The parties hereto shall pay their own costs and expenses in connection herewith, including all attorneys' fees; provided that the Company shall reimburse Abingworth for reasonable and documented expenses incurred in connection with the pre and post-closing due diligence, investment documentation, detailed background searches on management, counsel expenses of Latham & Watkins LLP and such other expenses incurred from time to time in connection with this Agreement in an amount not to exceed \$100,000. The Company shall pay all Transfer Agent fees, stamp taxes and other taxes and duties levied in connection with the sale and issuance of their applicable Securities.

8.2 Entire Agreement. The Transaction Documents, together with the exhibits and schedules thereto, contain the entire understanding of the parties with respect to the subject matter hereof and thereof and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules; provided, however, that any Confidentiality Agreements previously entered into between the Company and any Applicable Purchasers shall remain in full force and effect. At or after the Closing, and without further consideration, the Company will execute and deliver to the Purchasers, and the Purchasers will execute and deliver to the Company, such further documents as may be reasonably requested in order to give practical effect to the intention of the parties under the Transaction Documents.

8.3 Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of: (a) the date of

transmission, if such notice or communication is delivered via facsimile at the facsimile number or by electronic mail at the email address set forth on the signature pages attached hereto at or prior to 5:30 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or by electronic mail at the email address set forth on Exhibit A attached hereto on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (c) the second (2nd) Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service or (d) upon actual receipt by the party to whom such notice is required to be given. The address for such notices and communications shall be as follows:

(i) if to the Company, to Soleno Therapeutics, Inc., 1235 Radio Road, Suite 110, Redwood City, California 94065, Attention: Anish Bhatnagar, (email: anish@soleno.life), with a copy to Wilson Sonsini Goodrich & Rosati, Professional Corporation, 650 Page Mill Road, Palo Alto, California 94304 (e-mail: esatusky@wsgr.com), Attention: Elton Satusky; and

(ii) if to the Purchasers, to their respective addresses as set forth on Exhibit A attached hereto.

8.4 Amendments; Waivers. Subject to the provisions of Section 5.7, no provision of this Agreement may be waived, modified, supplemented or amended except in a written instrument signed, in the case of an amendment, by the Company and the Principal Purchasers or, in the case of a waiver, by the party against whom enforcement of any such waived provision is sought, provided, however, that any proposed amendment or waiver that disproportionately, materially and adversely affects the rights and obligations of any Purchaser relative to the comparable rights and obligations of the other Purchasers shall require the prior written consent of such adversely affected Purchaser. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right. Any amendment effected in accordance with accordance with this Section 8.4 shall be binding upon each Purchaser and the Company.

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

8.6 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns. The Company may not assign this Agreement or any rights or obligations hereunder without the prior written consent of each Purchaser. With the consent of the Company which will not be unreasonably withheld, any Purchaser may assign any or all of its rights under this Agreement to any Person to whom such Purchaser assigns or transfers any Securities, provided, that a Purchaser may assign any or all rights under this Agreement to an Affiliate of such Purchaser without the consent of the Company, and provided, further: (i) such transferor agrees in writing with the transferee or assignee to assign such rights, and a copy of such agreement is furnished to the Company after such assignment; (ii) the Company is furnished with written notice of (x) the name and address of such transferee or assignee and (y) if the transferor is assigning any registration rights under ARTICLE 5 hereof, the Registrable Securities with respect to which such registration rights are being transferred or assigned; (iii) following such transfer or assignment, the further disposition of such securities by the transferee or assignee is restricted under the Securities Act and applicable state securities laws, unless such disposition was made pursuant to an effective registration statement or an exemption under Rule 144 under the Securities Act; (iv) such transferee agrees in writing to be bound, with respect to the transferred Securities, by the provisions of the Transaction Documents that apply to the "Purchasers" including, without limitation, all of representations, warranties and agreements set forth in ARTICLE 4 hereof; and (v) such transfer shall have been made in accordance with the applicable requirements of this Agreement and with all laws applicable thereto.

8.7 No Third-Party Beneficiaries. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person, except as otherwise set forth in Sections 5.4 and 6.6 and this Section 8.7. In addition, the Placement Agent shall be an intended third party beneficiary of (i) the Company's representations and warranties set forth in ARTICLE 3 hereof and (ii) each Purchaser's representations, warranties and agreements set forth in ARTICLE 4 hereof, including Section 4.8 hereof.

8.8 **Governing Law; Jurisdiction.** This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the choice of law principles thereof. Each of the parties hereto irrevocably submits to the exclusive jurisdiction of the state and federal courts located in the State of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Agreement and the transactions contemplated hereby. Service of process in connection with any such suit, action or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Agreement. Each of the parties hereto irrevocably consents to the jurisdiction of any such court in any such suit, action or proceeding and to the laying of venue in such court. Each party hereto irrevocably waives any objection to the laying of venue of any such suit, action or proceeding brought in such courts and irrevocably waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum.

8.9 **WAIVER OF JURY TRIAL. IN ANY ACTION, SUIT, OR PROCEEDING IN ANY JURISDICTION BROUGHT BY ANY PARTY AGAINST ANY OTHER PARTY, THE PARTIES EACH KNOWINGLY AND INTENTIONALLY, TO THE GREATEST EXTENT PERMITTED BY APPLICABLE LAW, HEREBY ABSOLUTELY, UNCONDITIONALLY, IRREVOCABLY AND EXPRESSLY WAIVES FOREVER TRIAL BY JURY.**

8.10 **Survival.** The representations and warranties contained herein shall survive the Closing and the delivery of the Securities for a period of one (1) year.

8.11 **Execution.** This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to each other party, it being understood that the parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a “.pdf” format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or “.pdf” signature page were an original thereof.

8.12 **Severability.** If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their commercially reasonable efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

8.13 **Rescission and Withdrawal Right.** Notwithstanding anything to the contrary contained in (and without limiting any similar provisions of) any of the other Transaction Documents, whenever any Purchaser exercises a right, election, demand or option under a Transaction Document and the Company does not timely perform its related obligations within the periods therein provided, then such Purchaser may rescind or withdraw, in its sole discretion from time to time upon written notice to the Company, any relevant notice, demand or election in whole or in part without prejudice to its future actions and rights.

8.14 **Replacement of Securities.** If any certificate or instrument evidencing any Securities is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation thereof (in the case of mutilation), or in lieu of and substitution therefor, a new certificate or instrument, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction. The applicant for a new certificate or instrument under such circumstances shall also pay any reasonable third-party costs (including customary indemnity) associated with the issuance of such replacement Securities.

8.15 **Remedies.** In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, each of the Purchasers and the Company will be entitled to specific performance under the Transaction Documents. The parties agree that monetary damages may not be adequate compensation for any loss incurred by reason of any breach of obligations contained in the Transaction Documents and hereby agree to waive and not to assert in any action for specific performance of any such obligation the defense that a remedy at law would be adequate.

8.16 Independent Nature of Purchasers' Obligations and Rights. The obligations of each Purchaser under any Transaction Document are several and not joint with the obligations of any other Purchaser, and no Purchaser shall be responsible in any way for the performance or non-performance of the obligations of any other Purchaser under any Transaction Document. Nothing contained herein or in any other Transaction Document, and no action taken by any Purchaser pursuant hereof or thereto, shall be deemed to constitute the Purchasers as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Purchasers are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Transaction Documents. Each Purchaser shall be entitled to independently protect and enforce its rights, including, without limitation, the rights arising out of this Agreement or out of the other Transaction Documents, and it shall not be necessary for any other Purchaser to be joined as an additional party in any proceeding for such purpose. Each Purchaser has been represented by its own separate legal counsel in its review and negotiation of the Transaction Documents. The Company has elected to provide all Purchasers with the same terms and Transaction Documents for the convenience of the Company and not because it was required or requested to do so by any of the Purchasers.

8.17 Adjustments in Share Numbers and Prices. In the event of any stock split, subdivision, dividend or distribution payable in shares of Common Stock (or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly shares of Common Stock), combination or other similar recapitalization or event occurring after the date hereof, each reference in any Transaction Document to a number of shares or a price per share shall be deemed to be amended to appropriately account for such event.

8.18 Liquidated Damages. The Company's obligations to pay any partial liquidated damages or other amounts owing under the Transaction Documents is a continuing obligation of the Company and shall not terminate until all unpaid partial liquidated damages and other amounts have been paid notwithstanding the fact that the instrument or security pursuant to which such partial liquidated damages or other amounts are due and payable shall have been canceled.

8.19 Waiver of Conflicts. Each party to this Agreement acknowledges that Wilson Sonsini Goodrich & Rosati, Professional Corporation ("WSGR"), outside general counsel to the Company, has in the past performed and is or may now or in the future represent one or more Purchasers or their affiliates in matters unrelated to the transactions contemplated by this Agreement (the "Offering"), including representation of such Purchasers or their affiliates in matters of a similar nature to the Offering. The applicable rules of professional conduct require that WSGR inform the parties hereunder of this representation and obtain their consent. WSGR has served as outside general counsel to the Company and has negotiated the terms of the Offering solely on behalf of the Company. The Company and each Purchaser hereby (a) acknowledge that they have had an opportunity to ask for and have obtained information relevant to such representation, including disclosure of the reasonably foreseeable adverse consequences of such representation; (b) acknowledge that with respect to the Offering, WSGR has represented solely the Company, and not any Purchaser or any stockholder, director or employee of the Company or any Purchaser; and (c) gives its informed consent to WSGR's representation of the Company in the Offering.

[Remainder of Page Intentionally Left Blank; Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

SOLENO THERAPEUTICS, INC.

By: _____
Name: Anish Bhatnagar
Title: Chief Executive Officer

(Signature page to Securities Purchase Agreement)

IN WITNESS WHEREOF, the parties hereto have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

[PURCHASER]

By: _____
Name: _____
Title: _____

Address for Notice:

Telephone No.: _____
Facsimile No.: _____
E-mail Address: _____
Attention: _____

(Signature page to Securities Purchase Agreement)

IN WITNESS WHEREOF, the parties hereto have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Abingworth Bioventures VII LP acting by
Its Manager Abingworth LLP

By: _____
Name: _____
Title: _____

Notice details (if needed):

c/o Abingworth LLP
Attn: General Counsel
38 Jermyn Street
London SW1Y 6DN
United Kingdom

Email: legal@abingworth.com

(Signature page to Securities Purchase Agreement)

**EXHIBIT A
SCHEDULE OF PURCHASERS**

<u>Name of Purchaser and Address/Contact Information</u>	<u>Units Purchased</u>	<u>Number of Unit Shares Separable from Units Purchased</u>	<u>Number of Warrant Shares Exercisable from Warrants Separable from Units Purchased</u>	<u>Unit Purchase Price</u>
<i>TOTAL</i>				

EXHIBIT B

FORM OF WARRANT

EXHIBIT C

FORM OF WSGR OPINION

EXHIBIT D

STOCK REGISTRATION QUESTIONNAIRE

Pursuant to Section 2.3 of the Agreement, please provide us with the following information:

The exact name that the Securities are to be registered in (this is the name that will appear on the warrant(s) and common stock certificate(s) or Direct Registration System advice(s):

The relationship between the Purchaser of the Securities and the Registered Purchaser listed in response to Item 1 above:

The mailing address, telephone and telecopy number of the Registered Purchaser listed in response to Item 1 above:

The Tax Identification Number (or, if an individual, the Social Security Number) of the Registered Purchaser listed in response to Item 1 above:

American Stock Transfer & Trust Company, LLC Account Number of the Registered Purchaser listed in response to Item 1 above (indicate none if such Registered Purchaser does not yet have one):

Form of delivery of Unit Shares:

Stock certificate(s):

Electronic book-entry in the Direct Registration System:

EXHIBIT E

ACCREDITED INVESTOR QUALIFICATION QUESTIONNAIRE

Each prospective holder of equity securities of Soleno Therapeutics, Inc. (the "Company") must meet certain requirements in order to comply with the nonpublic offering exemption from the registration requirements under the U.S. Securities Act of 1933, as amended (the "Act"), and applicable state securities laws under which securities are to be issued in connection with the purchase of equity securities of the Company (the "Purchase"). Before the Purchase can be effected, the Company must be satisfied that you are an "accredited investor" (as such term is defined in Rule 501(a) of Regulation D promulgated under the Act) or that you, either alone or with your investment advisors, have sufficient financial expertise to be able to evaluate the merits and risks of your proposed purchase. You are requested to submit the following information in connection with the Purchase.

By signing this Questionnaire you also confirm your understanding that the Company will be relying on the accuracy and completeness of your responses to establish the Company's legal right to issue shares of capital stock to you without registration under U.S. federal securities laws and applicable state securities laws. YOUR ANSWERS WILL AT ALL TIMES BE KEPT STRICTLY CONFIDENTIAL. However, you agree by signing this Questionnaire that the Company may present this Questionnaire to such parties as it deems appropriate if called upon to establish the legality of your participation.

Please answer all questions which are applicable to you.

[Remainder of page intentionally left blank]

A. THIS SECTION A IS TO BE COMPLETED BY PROSPECTIVE INVESTORS WHO ARE INDIVIDUALS (also referred to as “natural persons” under the Act).

1. State of Principal Residence: (if outside the U.S. please also complete Section C).
2. Accredited Investor Status:

For purposes of this Question 2, an individual stockholder is an “Accredited Investor” if any of the following descriptions apply to the individual:

- (1) The undersigned has a net worth (assets minus liabilities), individually or jointly with his or her spouse, in excess of \$1,000,000 at the time of the investment.² In calculating net worth of the undersigned, (a) the value of the primary residence of the undersigned shall be excluded as an asset, (b) the outstanding indebtedness secured by the primary residence of the undersigned up to the fair market value of such primary residence at the time of investment shall be excluded as a liability, provided, however, that if the amount of such outstanding indebtedness at the time of investment exceeds the amount outstanding 60 days before such time, other than as a result of the acquisition of the primary residence, the amount of such excess shall be included as a liability,³ and (c) the outstanding indebtedness secured by the primary residence in excess of the fair market value of such primary residence at the time of investment shall be included as a liability;⁴
- (2) The undersigned had an individual income in excess of \$200,000, or joint income with spouse in excess of \$300,000, in each of the two preceding years and reasonably expects to reach the same income level in the current year; or
- (3) The undersigned is a director, executive officer or general partner of the Company.

Please check the appropriate box:

- (a) The undersigned meets the definition of an “Accredited Investor.”
- (b) The undersigned does not meet the definition of an “Accredited Investor.”

² Since the July 21, 2010 enactment of Section 413(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the value of a person’s primary residence must be excluded from his/her net worth. On December 21, 2011, the SEC adopted amendments to Rule 501(a)(5) and Rule 215 to clarify treatment of indebtedness secured by a person’s primary residence when calculating his or her net worth (Release No. 33-9287 Net Worth Standard for Accredited Investors). These amendments are effective February 27, 2012. It is important to follow carefully the instructions set forth in this Questionnaire when calculating net worth.

³ Effective February 27, 2012, the net worth standard includes a 60-day look-back requirement to identify any increase in mortgage debt incurred during the 60 days preceding the purchase of securities. The purpose of the look-back is to deter individuals from manipulating their net worth by borrowing against any positive equity in their primary residence shortly before seeking to qualify as an accredited investor.

⁴ Effective February 27, 2012, the net worth standard includes a limited grandfathering exception for certain pre-existing investors who held rights to purchase issuer’s securities (such as contractual pre-emptive rights or rights of first offer) immediately prior to the effective date of the Dodd-Frank Act. An investor may use the pre-Dodd-Frank Act net worth test (thereby including the value of the individual’s primary residence and any corresponding mortgage indebtedness in his or her net worth calculation) if all of the following conditions are satisfied: (a) the individual is purchasing securities in accordance with a right to purchase such securities; (b) the right was held by the individual on July 20, 2010, (c) the individual qualified as an accredited investor on the basis of net worth at the time that such right was acquired and (d) the individual held securities of the same issuer, other than such right, on July 20, 2010. If the undersigned believes that he or she may qualify for this exception, please contact Brian Cuneo at Latham & Watkins LLP, email: brian.cuneo@lw.com; phone: (650) 463-3014.

The undersigned hereby represents and warrants to the Company that (i) the information contained herein is complete and accurate and may be relied upon by the Company, (ii) the undersigned, together with his or her investment advisors, has such knowledge and experience in financial matters that he, she or they are capable of evaluating the merits and risks of the investment, and (iii) the undersigned will notify the Company or its counsel immediately of any material change in such information occurring prior to the acceptance or rejection of his or her stock in the Company.

The undersigned has or have executed this Investor Questionnaire on this day of , 2018.

Print Name of Stockholder

Signature of Stockholder

Print name of Spouse
(if the Shares are held in joint name or are property)

Signature of Spouse
(if the Shares are held in joint name or are community
community property)

B. THIS SECTION B IS TO BE COMPLETED BY ANY PROSPECTIVE INVESTOR THAT IS A CORPORATION, PARTNERSHIP OR TRUST(INCLUDING GRANTOR TRUST).

1. Type of Entity: General Partnership
 Limited Liability Partnership (LLP)
 Corporation
 Limited Liability Company (LLC)
 Trust
 Other Entity: (please describe type of entity)

2. State in Which Organized or Incorporated: (if outside the U.S. please also complete Section C).

3. Accredited Investor Status:

For purposes of this Question 3, an entity is an "Accredited Investor" if any or all of the following descriptions apply to the entity:

- (1) Each partner (including general and limited partners), stockholder, grantor of a revocable trust or other equity owner of the entity who is a natural person (a) has a net worth, individually or jointly with his or her spouse, in excess of \$1,000,000 (such net worth shall be calculated in accordance with the instructions set forth in Question A.2.(1) of this Questionnaire) or (b) had an individual income in excess of \$200,000, or joint income with that person's spouse in excess of \$300,000, in each of the two preceding years and reasonably expects to reach the same income level in the current year; or
- (2) The undersigned is (a) a broker dealer registered pursuant to Section 15 of the Securities Exchange Act of 1934, as amended; (b) a bank, as defined in Section 3(a)(2) of the Act, or a savings and loan association or other institution as defined in Section 3(a)(5)(A) of the Act, whether acting in its individual or fiduciary capacity; (c) an insurance company, as defined in Section 2(13) of the Act; (d) an investment company registered under the Investment Company Act of 1940, as amended (the "1940 Act") or a "business development company," as defined in Section 2(a)(48) of the 1940 Act; (e) a Small Business Investment Company licensed by the U.S. Small Business Administration under Section 301(c) or (d) of the Small Business Investment Act of 1958; (f) a plan established and maintained by a state, its political subdivisions, or any agency or instrumentality of a state or its political subdivisions, for the benefit of its employees, if such plan has total assets in excess of \$5,000,000; or (g) an employee benefit plan within the meaning of the Employee Retirement Income Security Act of 1974 ("ERISA"), if the investment decision is made by a plan fiduciary, as defined in Section 3(21) of ERISA, that is either a bank, savings and loan association, insurance company or registered investment adviser, or if the employee benefit plan has total assets in excess of \$5,000,000, or if a self directed plan, with investment decisions made solely by persons that are accredited investors; or
- (3) The undersigned is a "private business development company" as defined in Section 202(a)(22) of the Investment Advisers Act of 1940; or
- (4) The undersigned is a corporation, an organization described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended (the "Code"), a Massachusetts or similar business trust, or a partnership, not formed for the specific purpose of acquiring the securities offered, in each case with total assets in excess of \$5,000,000; or

- (5) The undersigned is a trust with total assets in excess of \$5,000,000, not formed for the specific purpose of acquiring the securities offered, whose purchase is directed by a sophisticated person as described in Rule 506(b)(2)(ii) under the Act.

Please check the appropriate box:

- (a) The undersigned meets the definition of an “Accredited Investor.”
 (b) The undersigned does not meet the definition of an “Accredited Investor.”

4. The undersigned hereby agrees to provide the Company upon request with a true and correct list of the names of all partners, stockholders, grantors of an irrevocable trust or other equity owners of the undersigned.

The undersigned has executed this Investor Questionnaire on this day of , 2018.

Print name of partnership
corporation, trust or
other entity

Print name of authorized
representative

By: _____
Signature of authorized
representative

Capacity of authorized
representative

C. THIS SECTION C IS TO BE COMPLETED BY ANY PROSPECTIVE INVESTOR THAT IS AN INTERNATIONAL INDIVIDUAL OR CORPORATION, PARTNERSHIP OR TRUST (INCLUDING GRANTOR TRUST).

In connection with the Purchase of the Company's securities pursuant to that certain Securities Purchase Agreement by and among the Company and the investors party thereto (the "Agreement"), the undersigned represents and warrants to the Company as follows (which representation and warranty shall be in addition to the undersigned's representations and warranties in Section 3 of the Agreement and shall have full force and effect as though it were a part of the Agreement):

If the undersigned is not a United States person (as defined by Section 7701(a)(30) of the Internal Revenue Code of 1986, as amended), the undersigned hereby represents that it has satisfied itself as to the full observance of the laws of its jurisdiction in connection with any invitation to subscribe for the Company's securities or any use of the Agreement, including (i) the legal requirements within its jurisdiction for the purchase of the Company's securities, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained, and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale, or transfer of the Company's securities. The undersigned's subscription and payment for and continued beneficial ownership of the Company's securities will not violate any applicable securities or other laws of the undersigned's jurisdiction.

The undersigned has executed this International Investor Representation on this _____ day of _____, 2018.

Individual Signature Block

Print Name of Stockholder

Signature of Stockholder

Entity Signature Block

Print name of partnership
corporation, trust or
other entity

Print name of authorized
representative

By: _____
Signature of authorized
representative

Capacity of authorized
representative

EXHIBIT F

BAD ACTOR QUESTIONNAIRE

1) During the past ten years, have you been convicted of any felony or misdemeanor that is related to any securities matter?

Yes (If yes, please continue to Question 1.a)

No (If no, please continue to Question 2)

- a) If your answer to Question 1 was “yes”, was the conviction related to: (i) the purchase or sale of any security; (ii) the making of any false filing with the Securities and Exchange Commission (the “SEC”); or (iii) the conduct of an underwriter, broker, dealer, municipal securities dealer, investment adviser, or paid solicitor of purchasers of securities?

Yes No

2) Are you subject to any court injunction or restraining order entered during the past five years that is related to any securities matter?

Yes (If yes, please continue to Question 2.a)

No (If no, please continue to Question 3)

- a) If your answer to Question 2 was “yes”, does the court injunction or restraining order currently restrain or enjoin you from engaging or continuing to engage in any conduct or practice related to: (i) the purchase or sale of any security; (ii) the making of any false filing with the SEC; or (iii) the conduct of an underwriter, broker, dealer, municipal securities dealer, investment adviser, or paid solicitor of purchasers of securities?

Yes No

3) Are you subject to any final order⁵ of any governmental commission, authority, agency or officer⁶ related to any securities, insurance, or banking matter?

Yes (If yes, please continue to Question 3.a)

No (If no, please continue to Question 4)

a) If your answer to Question 3 was “yes”:

i) Does the order currently bar you from: (i) associating with an entity regulated by such commission, authority, agency or officer; (ii) engaging in the business of securities, insurance or banking; or (iii) engaging in savings association or credit union activities?

Yes No

ii) Was the order (i) entered within the past ten years and (ii) based on a violation of any law or regulation that prohibits fraudulent, manipulative, or deceptive conduct?

Yes No

4) Are you subject to any SEC disciplinary order?⁷

Yes (If yes, please continue to Question 4.a)

No (If no, please continue to Question 5)

a) If your answer to Question 4 was “yes”, does the order currently: (i) suspend or revoke your registration as a broker, dealer, municipal securities dealer, or investment adviser; (ii) place limitations on your activities, functions, or operations; or (iii) bar you from being associated with any particular entity or class of entities or from participating in the offering of any penny stock?

Yes No

⁵ A “final order” is defined under Rule 501(g) as a written directive or declaratory statement issued by a federal or state agency described in Rule 506(d)(1)(iii) under applicable statutory authority that provides for notice and an opportunity for a hearing, and that constitutes a final disposition or action by such federal or state agency.

⁶ You may limit your response to final orders of: (i) state securities commissions (or state agencies/officers that perform a similar function); (ii) state authorities that supervise or examine banks, savings associations, or credit unions; (iii) state insurance commissions (or state agencies/officers that perform a similar function); (iv) federal banking agencies; (v) the U.S. Commodity Futures Trading Commission; or (vi) the U.S. National Credit Union Administration.

⁷ You may limit your response to disciplinary orders issued pursuant to Sections 15(b) or 15B(c) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) or Section 203(e) or (f) of the Investment Advisers Act of 1940 (the “Advisers Act”).

5) **Are you subject to any SEC cease and desist order entered within the past five years?**

Yes (If yes, please continue to Question 5.a)

No (If no, please continue to Question 6)

- a) If your answer to Question 5 was “yes”, does the order currently require you to cease and desist from committing or causing a violation or future violation of (i) any knowledge-based anti-fraud provision of the U.S. federal securities laws⁸ or (ii) Section 5 of the Securities Act?

Yes No

6) **Have you been suspended or expelled from membership in, or suspended or barred from association with a member of, a registered national securities exchange or a registered national or affiliated securities association?**

Yes (If yes, please describe the basis of any such suspension or expulsion and any related details in the space provided under Question 10 below)⁹

No (If no, please continue to Question 7)

⁸ Including (but not limited to) Section 17(a)(1) of the Securities Act, Section 10(b) of the Exchange Act and Rule 10b-5 thereunder, Section 15(c)(1) of the Exchange Act, and Section 206(1) of the Advisers Act or any other rule or regulation thereunder.

⁹ In providing additional information, please explain whether or not the suspension or expulsion resulted from “any act or omission to act constituting conduct inconsistent with just and equitable principles of trade.”

7) **Have you registered a securities offering with the SEC, made an offering under Regulation A or been named as an underwriter in any registration statement or Regulation A offering statement filed with the SEC?**

Yes (If yes, please continue to Question 5.a)

No (If no, please continue to Question 6)

a) If your answer to Question 7 was "yes":

i) During the past five years, was any such registration statement or Regulation A offering statement the subject of a refusal order, stop order, or order suspending the Regulation A exemption?

Yes No

ii) Is any such registration statement or Regulation A offering statement currently the subject of an investigation or proceeding to determine whether a stop order or suspension order should be issued?

Yes No

8) **Are you subject to a U.S. Postal Service false representation order entered within the past five years?**

Yes No

9) **Are you currently subject to a temporary restraining order or preliminary injunction with respect to conduct alleged by the U.S. Postal Service to constitute a scheme or device for obtaining money or property through the mail by means of false representations?**

Yes No

EXHIBIT G

PLAN OF DISTRIBUTION

We are registering the shares of common stock issued to the selling stockholders and issuable upon exercise of the warrants issued to the selling stockholders to permit the resale of these shares of common stock by the selling stockholders from time to time from after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of common stock. We will bear all fees and expenses incident to our obligation to register the shares of common stock.

Each selling stockholder may, from time to time, sell any or all of their shares of common stock covered hereby on The Nasdaq Capital Market or any other stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or privately negotiated prices. A selling stockholder may use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales, to the extent permitted by law;
- in transactions through broker-dealers that agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell the shares of common stock under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440-1.

In connection with the sale of the shares of common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares of common stock in the course of hedging the positions they assume. The selling stockholders may also sell the shares of common stock short and deliver these securities to close out their short positions or to return borrowed shares in connection with such short sales, or loan or pledge the shares of common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares of common stock offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling stockholders and any broker-dealers or agents that are involved in selling the shares of common stock may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such selling stockholders, broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Selling stockholders who are “underwriters” within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act and may be subject to certain statutory liabilities of, including but not limited to, Sections 11, 12 and 17 of the Securities Act and Rule 10b-5 under the Exchange Act. Each selling stockholder has informed us that it is not a registered broker-dealer or an affiliate of a registered broker-dealer. In no event shall any broker-dealer receive fees, commissions and markups which, in the aggregate, would exceed eight percent (8%).

We are required to pay certain fees and expenses incurred by us incident to the registration of the shares. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act, and the selling stockholders may be entitled to contribution. We may be indemnified by the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act that may arise from any written information furnished to us by the selling stockholders specifically for use in this prospectus, or we may be entitled to contribution.

The selling stockholders will be subject to the prospectus delivery requirements of the Securities Act including Rule 172 thereunder unless an exemption therefrom is available.

We agreed to cause the registration statement of which this prospectus is a part to remain effective until the earlier to occur of [●] or the date on which all of the shares registered hereby are either sold pursuant to the registration statement or sold or available for resale without restriction under Rule 144 under the Securities Act. The shares of common stock will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the shares of common stock covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the shares of common stock may not simultaneously engage in market making activities with respect to the shares of common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of common stock by the selling stockholders or any other person. We will make copies of this prospectus available to the selling stockholders and have informed them of the need to deliver a copy of this prospectus at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

There can be no assurance that any selling stockholder will sell any or all of the shares of common stock we registered on behalf of the selling stockholders pursuant to the registration statement of which this prospectus forms a part.

Once sold under the registration statement of which this prospectus forms a part, the shares of common stock will be freely tradable in the hands of persons other than our affiliates.

Soleno Therapeutics Announces \$16.5 Million Private Placement

Financing Led by Abingworth; Andrew Sinclair, Partner, to Join Soleno's Board

Funding to Support Ongoing Phase III Clinical Program (DESTINY PWS) for DCCR in Prader-Willi Syndrome

REDWOOD CITY, Calif., December 19, 2018 – Soleno Therapeutics, Inc. (NASDAQ: SLNO), a clinical-stage biopharmaceutical company developing novel therapeutics for the treatment of rare diseases, today announced that it has entered into a definitive agreement with certain institutional and accredited investors to raise aggregate gross proceeds of approximately \$16.5 million through the private placement of its equity securities (“PIPE”). The financing was led by Abingworth LLP, a leading transatlantic bioscience investment firm, and supported by certain of Soleno’s existing investors, including Oracle Investment Management and entities associated with Jack W. Schuler, as well as Ernest Mario, the Chairman of the company’s Board of Directors. In connection with this financing, Andrew Sinclair, a Partner at Abingworth, will join Soleno’s Board of Directors.

Soleno will sell 10,272,375 Units at \$1.60625 per Unit. Each Unit consists of one share of Soleno’s Common Stock at a purchase price of \$1.60, the closing price of the Common Stock on December 18, 2018, and one warrant to purchase 0.05 shares of Common Stock at a purchase price of \$0.00625 per warrant, for gross proceeds of approximately \$16.5 million. Each warrant has an exercise price of \$2.00 per share. The warrants become exercisable on the six month anniversary of the closing of the PIPE and will have a term of five years.

Soleno intends to use the net proceeds from the offering to support the ongoing DESTINY Phase III program (“DESTINY PWS”) of Diazoxide Choline Controlled-Release (“DCCR”) in Prader-Willi syndrome (“PWS”), a rare and complex genetic neurobehavioral/metabolic disorder affecting appetite, growth, metabolism, cognitive function, and behavior, as well as general corporate purposes.

Roth Capital Partners is acting as sole placement agent for the transaction.

This press release is issued pursuant to Rule 135(c) under the Securities Act of 1933, as amended, and does not constitute an offer to sell or the solicitation of an offer to buy these securities, nor shall there be any sale of these securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of any such jurisdiction.

The securities to be sold in the PIPE have not been registered under the Securities Act of 1933, as amended, or state securities laws and may not be offered or sold in the United States absent registration with the Securities and Exchange Commission or an applicable exemption from such registration requirements. Soleno has agreed to file a registration statement with the Securities and Exchange Commission covering the resale of the shares of common stock, including the shares of common stock issuable upon exercise of the warrants, sold in the private placement. Soleno has agreed to file the registration statement no later than March 30, 2019. If any shares are unable to be included on the initial registration statement, Soleno has agreed to file subsequent registration statements until all the shares have been registered, and the registration rights agreement imposes certain customary cash penalties on Soleno for its failure to satisfy specified filing and effectiveness time periods.

About PWS

The Prader-Willi Syndrome Association USA estimates that one in 12,000 to 15,000 people in the US have PWS. The hallmark symptom of this disorder is hyperphagia, a chronic feeling of insatiable hunger that severely diminishes the quality of life for PWS patients and their families. Additional characteristics of PWS include behavioral problems, cognitive disabilities, low muscle tone, short stature (when not treated with growth hormone), the accumulation of excess body fat, developmental delays, and incomplete sexual development. Hyperphagia can lead to significant morbidities (e.g., stomach rupture, obesity, diabetes, cardiovascular disease) and mortality (e.g., choking, accidental death due to food seeking behavior). In a global survey conducted by the Foundation for Prader-Willi Research, 96.5% of respondents (parent and caregivers) rated hyperphagia as the most important or a very important symptom to be relieved by a new medicine. There are currently no approved therapies to treat the hyperphagia/appetite, metabolic, cognitive function, or behavioral aspects of the disorder. Diazoxide choline has received Orphan Drug Designation for the treatment of PWS in the U.S. and E.U.

About Diazoxide Choline Controlled-Release Tablet

Diazoxide choline controlled-release tablet is a novel, proprietary extended-release, crystalline salt formulation of diazoxide, which is administered once-daily. The parent molecule, diazoxide, has been used for decades in thousands of patients in a few rare diseases in neonates, infants, children and adults, but has not been approved for use in PWS. Soleno conceived of and established extensive patent protection on the therapeutic use of diazoxide and DCCR in patients with PWS. The DCCR development program is supported by data from five completed Phase I clinical studies in healthy volunteers and three completed Phase II clinical studies, one of which was in PWS patients. In the PWS Phase II study, DCCR showed promise in addressing hyperphagia, the hallmark symptom of PWS, as well as several other symptoms such as aggressive/destructive behaviors, fat mass and abnormal lipid profiles.

About Soleno Therapeutics, Inc.

Soleno is focused on the development and commercialization of novel therapeutics for the treatment of rare diseases. The company's lead candidate, DCCR, a once-daily oral tablet for the treatment of PWS, is currently being evaluated in a Phase III clinical development program.

For more information, please visit www.soleno.life.

Forward-Looking Statements

This press release contains forward-looking statements that are subject to many risks and uncertainties. Forward-looking statements include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our ability to complete the Phase III clinical development program of DCCR in PWS in 2019.

We may use terms such as “believes,” “estimates,” “anticipates,” “expects,” “plans,” “intends,” “may,” “could,” “might,” “will,” “should,” “approximately” or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained herein, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this presentation. As a result of these factors, we cannot assure you that the forward-looking statements in this press release will prove to be accurate. Additional factors that could materially affect actual results can be found in Soleno's annual and quarterly reports filed with the Securities and Exchange Commission, including under the caption titled “Risk Factors.” Soleno expressly disclaims any intent or obligation to update these forward-looking statements, except as required by law.

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