

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

FORM 8-K

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

Date of Report (date of earliest event reported): October 23, 2019

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)

203 Redwood Shores Pkwy, Suite 500
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))

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

Title of each class	Trading symbols	Name of each exchange on which registered
Common Stock, \$0.001 par value	SLNO	NASDAQ
Common Stock, \$0.001 per value, underlying the warrants	SLNOW	NASDAQ

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 October 23, 2019, Soleno Therapeutics, Inc. (the “**Company**”) entered into an underwriting agreement (the “**Underwriting Agreement**”) with Oppenheimer & Co. Inc., as representatives of the several underwriters named in Schedule I thereto (the “**Underwriters**”) relating to the public offering (the “**Offering**”) of 11,166,667 shares of the Company’s common stock, \$0.001 par value per share (the “**Common Stock**”), at a price to the public of \$1.20 per share. Under the terms of the Underwriting Agreement, the Company also granted the Underwriters a 30-day option to purchase up to an additional 1,675,000 shares of Common Stock. The Underwriters notified the Company of the exercise in full of their option to purchase the additional shares on October 24, 2019, and the Offering, including the sale of shares of Common Stock subject to the Underwriters’ option, closed on October 25, 2019. The net proceeds to the Company from the Offering, after deducting the underwriting discount and estimated offering expenses payable by the Company, are expected to be approximately \$14.5 million.

The shares of Common Stock are being offered and sold pursuant to the Company’s shelf registration statement on Form S-3 (File No. 333-232068) (the “**Registration Statement**”), which was declared effective by the Securities and Exchange Commission (the “**SEC**”) on July 23, 2019, as supplemented by a preliminary prospectus supplement, dated October 22, 2019, and a final prospectus supplement, dated October 23, 2019, filed with the SEC pursuant to Rule 424(b) under the Securities Act of 1933 (the “**Securities Act**”), as amended.

The Underwriting Agreement contains customary representations, warranties and agreements by the Company. Under the terms of the Underwriting Agreement, the Company has agreed to indemnify the Underwriters against certain liabilities.

The Underwriting Agreement has been filed with this report to provide information regarding its terms. It is not intended to provide any other factual information about the Company. The representations, warranties and covenants contained in the Underwriting Agreement were made only for purposes of such agreement and as of specific dates, were solely for the benefit of the parties to such agreement, and may be subject to limitations agreed upon by the contracting parties.

The foregoing is only a brief description of the material terms of the Underwriting Agreement, does not purport to be a complete description of the rights and obligations of the parties thereunder, and is qualified in its entirety by reference to the Underwriting Agreement that is filed as Exhibit 1.1 to this Current Report on Form 8-K and incorporated herein by reference.

Item 8.01 Other Events.

On October 23, 2019, the Company issued a press release announcing pricing of the Offering. A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K and incorporated herein by reference.

In connection with the Offering, the legal opinion as to the legality of the Common Stock sold is being filed as Exhibit 5.1 to this Current Report on Form 8-K and is incorporated herein and into the Registration Statement by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
1.1	Underwriting Agreement, dated as of October 23, 2019, by and between Soleno Therapeutics, Inc. and Oppenheimer & Co. Inc.
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, P.C.
23.1	Opinion of Wilson Sonsini Goodrich & Rosati, P.C. (included in Exhibit 5.1 hereto).
99.1	Press Release of Soleno Therapeutics, Inc. dated October 23, 2019.
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101).

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.

SOLENO THERAPEUTICS, INC.

Date: October 25, 2019

By: /s/ Anish Bhatnagar

Anish Bhatnagar

Chief Executive Officer

11,166,667 Shares

SOLENO THERAPEUTICS, INC.

Common Stock

UNDERWRITING AGREEMENT

October 23, 2019

Oppenheimer & Co. Inc.,
as Representative of the several
Underwriters named in Schedule I hereto
c/o Oppenheimer & Co. Inc.
85 Broad Street
New York, New York 10004

Ladies and Gentlemen:

Soleno Therapeutics, Inc., a Delaware corporation (the "Company"), proposes, subject to the terms and conditions contained herein, to sell to you and the other underwriters named on Schedule I to this Agreement (the "Underwriters"), for whom you are acting as Representative (the "Representative"), an aggregate of 11,166,667 shares (the "Firm Shares") of the Company's common stock, \$0.001 par value per share (the "Common Stock"). The respective amounts of the Firm Shares to be purchased by each of the several Underwriters are set forth opposite their names on Schedule I hereto. In addition, the Company proposes to grant to the Underwriters an option to purchase up to an additional 1,675,000 shares (the "Option Shares") of Common Stock for the purpose of covering over-allotments in connection with the sale of the Firm Shares. The Firm Shares and the Option Shares are collectively called the "Shares."

The Company has prepared and filed in conformity with the requirements of the Securities Act of 1933, as amended (the "Securities Act"), and the published rules and regulations thereunder (the "Rules") adopted by the Securities and Exchange Commission (the "Commission") a registration statement on Form S-3 (No. 333-232068), including a related prospectus dated July 23, 2019 (the "Base Prospectus") relating to common stock and warrants to purchase common stock of the Company that may be sold from time to time by the Company in accordance with Rule 415 of the Securities Act, and such amendments thereof as may have been required to the date of this Agreement. Copies of such Registration Statement (including all amendments thereof and all documents deemed incorporated by reference therein) and of the related Base Prospectus have heretofore been delivered by the Company or are otherwise available to you. The term "Registration Statement" as used in this Agreement means the registration statement, including all exhibits, financial schedules and all documents and information deemed to be part of the Registration Statement by incorporation by reference or otherwise, as amended from time to time, including the information (if any) contained in the

form of final prospectus filed with the Commission pursuant to Rule 424(b) of the Rules and deemed to be part thereof at the time of effectiveness pursuant to Rule 430A of the Rules. If the Company has filed an abbreviated registration statement to register additional Shares pursuant to Rule 462(b) under the Rules (the “462(b) Registration Statement”), then any reference herein to the Registration Statement shall also be deemed to include such 462(b) Registration Statement. The term “Preliminary Prospectus” means the Base Prospectus, together with any preliminary prospectus supplement used or filed with the Commission pursuant to Rule 424 of the Rules, in the form provided to the Underwriters by the Company for use in connection with the offering of the Shares. The term “Prospectus” means the Base Prospectus, any Preliminary Prospectus and any amendments or further supplements to such prospectus, and including, without limitation, the final prospectus supplement, filed pursuant to and within the limits described in Rule 424(b) with the Commission in connection with the proposed sale of the Shares contemplated by this Agreement through the date of such prospectus supplement. The term “Effective Date” shall mean each date that the Registration Statement and any post-effective amendment or amendments thereto became or become effective. Unless otherwise stated herein, any reference herein to the Registration Statement, any Preliminary Prospectus, the Statutory Prospectus (as hereinafter defined) and the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein, including pursuant to Item 12 of Form S-3 under the Securities Act, which were filed under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) on or before the date hereof or are so filed hereafter. Any reference herein to the terms “amend,” “amendment” or “supplement” with respect to the Registration Statement, any Preliminary Prospectus, the Statutory Prospectus or the Prospectus shall be deemed to refer to and include any such document filed or to be filed under the Exchange Act after the date of the Registration Statement, any such Preliminary Prospectus, the Statutory Prospectus or Prospectus, as the case may be, and deemed to be incorporated therein by reference.

The Company understands that the Underwriters propose to make a public offering of the Shares, as set forth in and pursuant to the Statutory Prospectus (as hereinafter defined) and the Prospectus, as soon after the Effective Date and the date of this Agreement as the Representative deems advisable. The Company hereby confirms that the Underwriters and dealers have been authorized to distribute or cause to be distributed each Preliminary Prospectus, and each Issuer Free Writing Prospectus (as hereinafter defined), if any, and are authorized to distribute the Prospectus (as from time to time amended or supplemented if the Company furnishes amendments or supplements thereto to the Underwriters).

1. Sale, Purchase, Delivery and Payment for the Shares. On the basis of the representations, warranties and agreements contained in, and subject to the terms and conditions of, this Agreement:

(a) The Company agrees to issue and sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at a purchase price of \$1.14 per share (the “Initial Price”), the number of Firm Shares set forth opposite the name of such Underwriter under the column “Number of Firm Shares to be Purchased from the Company” on Schedule I to this Agreement, subject to adjustment in accordance with Section 9 hereof.

(b) The Company hereby grants to the several Underwriters an option to purchase, severally and not jointly, all or any part of the Option Shares at the Initial Price. The number of Option Shares to be purchased by each Underwriter shall be the same percentage (adjusted by the Representative to eliminate fractions) of the total number of Option Shares to be purchased by the Underwriters as such Underwriter is purchasing of the Firm Shares. Such option may be exercised in whole or in part at any time on or before 12:00 noon, New York City time, on the business day before the Firm Shares Closing Date (as defined below), and from time to time thereafter within 30 days after the date of this Agreement, in each case upon written, facsimile or e-mail notice, or verbal or telephonic notice confirmed by written, facsimile or e-mail notice, by the Representative to the Company no later than 12:00 noon, New York City time, on the business day before the Firm Shares Closing Date or at least one business day before the Option Shares Closing Date (as defined below), as the case may be, setting forth the number of Option Shares to be purchased and the time and date (if other than the Firm Shares Closing Date) of such purchase.

(c) Payment of the purchase price for, and delivery of, the Firm Shares shall be made at the offices of Oppenheimer & Co. Inc., 85 Broad Street, New York, New York 10004, at 10:00 a.m., New York City time, on the second (or if the Firm Shares are priced, as contemplated by Rule 15c6-1(c) under the Exchange Act (as defined below), after 4:30 p.m. Eastern time, the third) business day following the date of this Agreement or at such time on such other date, not later than ten (10) business days after the date of this Agreement, as shall be agreed upon by the Company and the Representative (such time and date of delivery and payment are called the "Firm Shares Closing Date"). In addition, in the event that any or all of the Option Shares are purchased by the Underwriters, payment of the purchase price, and delivery of the certificates, for such Option Shares shall be made at the above-mentioned offices, or at such other place as shall be agreed upon by the Representative and the Company, on each date of delivery as specified in the notice from the Representative to the Company (such time and date of delivery and payment are called the "Option Shares Closing Date"). The Firm Shares Closing Date and any Option Shares Closing Date are called, individually, a "Closing Date" and, together, the "Closing Dates."

(d) Payment shall be made to the Company by wire transfer of immediately available funds or by certified or official bank check or checks payable in New York Clearing House (same day) funds drawn to the order of the Company, against delivery of the Firm Shares and Option Shares, if any, to the account of the Representative for the respective accounts of the Underwriters for the Firm Shares and Option Shares, if any, to be purchased by them.

(e) The Firm Shares shall be registered in such names and shall be in such denominations as the Representative shall request at least two full business days before the Firm Shares Closing Date or, in the case of Option Shares, on the day of notice of exercise of the option as described in Section 1(b), and shall be delivered by or on behalf of the Company to the Representative through the facilities of the Depository Trust Company ("DTC") for the account of such Underwriter.

2. Representations and Warranties of the Company. The Company represents and warrants to each Underwriter as of the date hereof, as of the Firm Shares Closing Date and as of each Option Shares Closing Date (if any), as follows:

(a) The Company meets the requirements for use of Form S-3 under the Securities Act, including the transaction requirements set forth in General Instruction I.B.6 of such form. The aggregate market value of all securities sold by or on behalf of the Company pursuant to Form S-3 during the period of 12 calendar months immediately prior to, and including, the offering contemplated hereby is no more than one-third of the aggregate market value of the voting and non-voting common equity held by non-affiliates of the Company. The Company is not, and has not been for at least 12 calendar months prior to the filing of the Registration Statement, a shell company. The Company filed with the Commission the Registration Statement on such Form S-3, including a Base Prospectus, for registration under the Securities Act of the offering and sale of the Shares, and the Company has prepared and provided to the Underwriters a Preliminary Prospectus in connection with the offer and sale of the Shares. When the Registration Statement or any amendment thereof or supplement thereto was or is declared effective, it (i) complied or will comply, in all material respects, with the requirements of the Securities Act and the Rules and the Exchange Act and the rules and regulations of the Commission thereunder and (ii) did not or will not, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not misleading. When any Preliminary Prospectus or Prospectus was first filed with the Commission (whether filed as part of the Registration Statement or any amendment thereto or pursuant to Rule 424 of the Rules) and when any amendment thereof or supplement thereto was first filed with the Commission, such Preliminary Prospectus or Prospectus as amended or supplemented complied in all material respects with the applicable provisions of the Securities Act and the Rules and did not or will not, contain any untrue statement of a material fact or omit to state any 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. If applicable, each Preliminary Prospectus and the Prospectus delivered to the Underwriters for use in connection with this offering was identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T. Notwithstanding the foregoing, none of the representations and warranties in this paragraph 2(a) shall apply to statements in, or omissions from, the Registration Statement, any Preliminary Prospectus or the Prospectus made in reliance upon, and in conformity with, information herein or otherwise furnished in writing by the Representative on behalf of the several Underwriters specifically for use in the Registration Statement, any Preliminary Prospectus or the Prospectus. With respect to the preceding sentence, the Company acknowledges that the only information furnished in writing by the Representative for use in the Registration Statement, any Preliminary Prospectus or the Prospectus is the statements contained in the subsections titled “Stabilizing transactions,” “Syndicate covering transactions,” and “Penalty bids” in the section captioned “Stabilization” under the caption “Underwriting” in the Prospectus (collectively, the “Underwriting Information”).

(b) As of the Applicable Time (as hereinafter defined), none of (i) the price to the public and the number of shares offered and sold, as indicated on the cover page of the Prospectus and the Statutory Prospectus (as hereinafter defined), all considered together (collectively, the “General Disclosure Package”), (ii) any individual Issuer Free Writing Prospectus when considered together with the General Disclosure Package, and (iii) any individual Written Testing-the Waters Communication (as defined herein), when considered together with the General Disclosure Package, included, includes or will include any untrue statement of a material fact or omitted, omits or will omit to state any material fact required to be

stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to statements in or omissions in the General Disclosure Package or an Issuer Free Writing Prospectus made in reliance upon and in conformity with the Underwriter Information.

Each Issuer Free Writing Prospectus (as hereinafter defined), including any electronic road show (including without limitation any “bona fide electronic road show” as defined in Rule 433(h)(5) under the Securities Act) (each, a “Road Show”) (i) is identified in Schedule III hereto and (ii) complied when issued, and complies, in all material respects with the requirements of the Securities Act and the Rules and the Exchange Act and the rules and regulations of the Commission thereunder.

As used in this Section and elsewhere in this Agreement:

“Applicable Time” means 8:00 a.m. (Eastern Daylight Time) on the date of this Agreement.

“Statutory Prospectus” as of any time means the Preliminary Prospectus relating to the Shares that is included in the Registration Statement immediately prior to the Applicable Time, including any document incorporated by reference therein and any prospectus supplement deemed to be a part thereof.

“Issuer Free Writing Prospectus” means each “free writing prospectus” (as defined in Rule 405 of the Rules) prepared by or on behalf of the Company or used or referred to by the Company in connection with the offering of the Shares, including, without limitation, each Road Show.

(c) The Registration Statement is effective under the Securities Act and no stop order preventing or suspending the effectiveness of the Registration Statement or suspending or preventing the use of any Preliminary Prospectus, the Prospectus or any “free writing prospectus”, as defined in Rule 405 under the Rules, has been issued by the Commission and no proceedings for that purpose have been instituted or, to the Company’s knowledge, have been threatened under the Securities Act. Any required filing of any Preliminary Prospectus and/or the Prospectus and any supplement thereto pursuant to Rule 424(b) of the Rules has been or will be made in the manner and within the time period required by such Rule 424(b). Any material required to be filed by the Company pursuant to Rule 433(d) or Rule 163(b)(2) of the Rules has been or will be made in the manner and within the time period required by such Rules.

(d) The documents incorporated by reference in the Registration Statement, any Preliminary Prospectus and the Prospectus, at the time they became effective or were filed with the Commission, as the case may be, complied in all material respects with the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder, and none of such documents contained an 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, and any further documents so filed and incorporated by reference in the Registration

Statement, any Preliminary Prospectus and the Prospectus, when such documents become effective or are filed with the Commission, as the case may be, will conform in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and will not contain 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 light of the circumstances under which they are made, not misleading.

(e) Each Issuer Free Writing Prospectus, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Shares or until any earlier date that the Company notified or notifies the Representative as described in the next sentence, did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, including any document incorporated by reference therein and any prospectus supplement deemed to be a part thereof that has not been superseded or modified, the Statutory Prospectus or the Prospectus.

If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement, the Statutory Prospectus or the Prospectus or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances prevailing at the subsequent time, not misleading, the Company has promptly notified or will promptly notify the Representative and has promptly amended or will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(f) The financial statements of the Company (including all notes and schedules thereto) included in the Registration Statement, the Statutory Prospectus and Prospectus present fairly the financial position of the Company and its consolidated subsidiaries as of the dates indicated and the statement of operations, stockholders' equity and cash flows of the Company and its consolidated subsidiaries for the periods specified; and such financial statements and related schedules and notes thereto, and the unaudited financial information filed with the Commission as part of the Registration Statement, have been prepared in conformity with generally accepted accounting principles, consistently applied throughout the periods involved except as may be expressly stated in the related notes thereto. The summary and selected financial data included in the Statutory Prospectus and Prospectus present fairly the information shown therein as at the respective dates and for the respective periods specified and have been presented on a basis consistent with the consolidated financial statements set forth in the Prospectus and other financial information.

(g) Marcum LLP (the "Auditor") whose reports are filed with the Commission as a part of the Registration Statement, are and, during the periods covered by their reports, were independent public accountants as required by the Securities Act and the Rules.

(h) The Company and each of its subsidiaries (each, a "Subsidiary"), is duly organized, validly existing and in good standing under the laws of their respective jurisdictions of incorporation or organization and each such entity has all requisite power and authority to carry

on its business as is currently being conducted as described in the Statutory Prospectus and the Prospectus, and to own, lease and operate its properties. All of the issued shares of capital stock of, or other ownership interests in, each Subsidiary have been duly and validly authorized and issued and are fully paid and non-assessable and are owned, directly or indirectly, by the Company, free and clear of any lien, charge, mortgage, pledge, security interest, claim, limitation on voting rights, equity, trust or other encumbrance, preferential arrangement, defect or restriction of any kind whatsoever. The Company and each of its Subsidiaries is duly qualified to do business and is in good standing as a foreign corporation in each jurisdiction in which the nature of the business conducted by it or location of the assets or properties owned, leased or licensed by it requires such qualification, except for such jurisdictions where the failure to so qualify individually or in the aggregate would not have a material adverse effect on the assets, properties, condition, financial or otherwise, or in the results of operations, business affairs or business prospects of the Company and its Subsidiaries considered as a whole (a "Material Adverse Effect"); and to the Company's knowledge, 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.

(i) The Registration Statement initially became effective within three years of the date hereof. If, immediately prior to the third anniversary of the initial effective date of the Registration Statement, any of the Shares remain unsold by the Underwriters, the Company will, prior to that third anniversary file, if it has not already done so, a new shelf registration statement relating to the Shares, in a form satisfactory to the Representative, will use its best efforts to cause such registration statement to be declared effective within 180 days after that third anniversary, and will take all other action necessary or appropriate to permit the public offering and sale of the Shares to continue as contemplated in the expired Registration Statement. References herein to the registration statement relating to the Shares shall include such new shelf registration statement.

(j) At the earliest time after the filing of the Registration Statement that the Company or another offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2) of the Rules) of the Shares and (ii) at the date hereof, the Company was not and is not an "ineligible issuer," as defined in Rule 405 of the Rules, including (but not limited to) the Company or any other Subsidiary in the preceding three years not having been convicted of a felony or misdemeanor or having been made the subject of a judicial or administrative decree or order as described in Rule 405 of the Rules.

(k) The Company and each of its Subsidiaries has all requisite corporate power and authority, and all necessary authorizations, approvals, consents, orders, licenses, certificates and permits of and from all governmental or regulatory bodies or any other person or entity (collectively, the "Permits"), to own, lease and license its assets and properties and conduct its business, all of which are valid and in full force and effect, except where the lack of such Permits, individually or in the aggregate, would not have a Material Adverse Effect. The Company and each of its Subsidiaries has fulfilled and performed in all material respects all of its obligations with respect to such Permits and no event has occurred that allows, or after notice or lapse of time would allow, revocation or termination thereof or results in any other material impairment of the rights of the Company thereunder. Except as may be required under the Securities Act and state and foreign Blue Sky laws, no other Permits are required to enter into, deliver and perform this Agreement and to issue and sell the Shares.

(l) The Company and each of its Subsidiaries owns or possesses legally enforceable rights to use all patents, patent rights, inventions, trademarks, trademark applications, trade names, service marks, copyrights, copyright applications, licenses, know-how and other similar rights and proprietary knowledge (collectively, “Intangibles”) necessary for the conduct of its business. Neither the Company nor any of its Subsidiaries has received any written notice of, or is not aware of, any infringement of or conflict with asserted rights of others with respect to any Intangibles.

(m) The Company and each of its Subsidiaries has good and marketable title in fee simple to all real property, and good and marketable title to all other property owned by it, in each case free and clear of all liens, encumbrances, claims, security interests and defects, except such as do not materially affect the value of such property and do not materially interfere with the use made or proposed to be made of such property by the Company and its Subsidiaries. All property held under lease by the Company and its Subsidiaries is held by them under valid, existing and enforceable leases, free and clear of all liens, encumbrances, claims, security interests and defects, except such as are not material and do not materially interfere with the use made or proposed to be made of such property by the Company and its Subsidiaries.

(n) Subsequent to the respective dates as of which information is given in the Registration Statement, the Statutory Prospectus and the Prospectus, (i) there has not been any event which could have a Material Adverse Effect; (ii) neither the Company nor any of its Subsidiaries has sustained any loss or interference with its assets, businesses or properties (whether owned or leased) from fire, explosion, earthquake, flood or other calamity, whether or not covered by insurance, or from any labor dispute or any court or legislative or other governmental action, order or decree which would have a Material Adverse Effect; and (iii) since the date of the latest balance sheet included in the Registration Statement and the Prospectus, neither the Company nor its Subsidiaries has (A) issued any securities (other than securities issued pursuant to employee benefit plans, qualified stock option plans or other employee compensation plans or pursuant to outstanding options, rights or warrants) or incurred any liability or obligation, direct or contingent, for borrowed money, except such liabilities or obligations incurred in the ordinary course of business, (B) entered into any transaction not in the ordinary course of business or (C) declared or paid any dividend or made any distribution on any shares of its stock or redeemed, purchased or otherwise acquired or agreed to redeem, purchase or otherwise acquire any shares of its capital stock.

(n) There is no document, contract or other agreement required to be described in the Registration Statement, the Statutory Prospectus or the Prospectus or to be filed as an exhibit to the Registration Statement which is not described or filed as required by the Securities Act or Rules. Each description of a contract, document or other agreement in the Registration Statement, the Statutory Prospectus or the Prospectus accurately reflects in all material respects the terms of the underlying contract, document or other agreement. Each contract, document or other agreement described in the Registration Statement, the Statutory Prospectus or the Prospectus or listed in the Exhibits to the Registration Statement or incorporated by reference is in full force and effect and is valid and enforceable by and against the Company or its

Subsidiary, as the case may be, in accordance with its terms. Neither the Company nor any of its Subsidiaries, if a Subsidiary is a party, nor to the Company's knowledge, any other party is in default in the observance or performance of any term or obligation to be performed by it under any such agreement, and no event has occurred which with notice or lapse of time or both would constitute such a default, in any such case which default or event, individually or in the aggregate, would have a Material Adverse Effect. No default exists, and no event has occurred which with notice or lapse of time or both would constitute a default, in the due performance and observance of any term, covenant or condition, by the Company or its Subsidiary, if a Subsidiary is a party thereto, of any other agreement or instrument to which the Company or any of its Subsidiaries is a party or by which Company or its properties or business or a Subsidiary or its properties or business may be bound or affected which default or event, individually or in the aggregate, would have a Material Adverse Effect.

(o) The statistical and market related data included in the Registration Statement, the Statutory Prospectus or the Prospectus are based on or derived from sources that the Company believes to be reliable and accurate.

(p) Neither the Company nor any Subsidiary (i) is in violation of its certificate or articles of incorporation, by-laws, certificate of formation, limited liability company agreement, partnership agreement or other organizational documents, (ii) is in default under, and no event has occurred which, with notice or lapse of time, or both, would constitute a default under, or result in the creation or imposition of any lien, charge, mortgage, pledge, security interest, claim, limitation on voting rights, equity, trust or other encumbrance, preferential arrangement, defect or restriction of any kind whatsoever, upon, any property or assets of the Company or any Subsidiary pursuant to, any bond, debenture, note, indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which it is a party or by which it is bound or to which any of its properties or assets is subject or (iii) is in violation of any applicable statute, law, rule, regulation, ordinance, directive, judgment, decree or order of any judicial, regulatory or other legal or governmental agency or body, foreign or domestic, except (in the case of clauses (ii) and (iii) above) for violations or defaults that could not (individually or in the aggregate) reasonably be expected to have a Material Adverse Effect.

(q) This Agreement has been duly authorized, executed and delivered by the Company;

(r) Neither the execution, delivery and performance of this Agreement by the Company nor the consummation of any of the transactions contemplated hereby (including, without limitation, the issuance and sale by the Company of the Shares) will give rise to a right to terminate or accelerate the due date of any payment due under, or conflict with or result in the breach of any term or provision of, or constitute a default (or an event which with notice or lapse of time or both would constitute a default) under, or require any consent or waiver under, or result in the execution or imposition of any lien, charge or encumbrance upon any properties or assets of the Company or its Subsidiaries pursuant to the terms of, any indenture, mortgage, deed of trust or other agreement or instrument to which the Company or any of its Subsidiaries is a party or by which either the Company or its subsidiaries or any of their properties or businesses is bound, or any franchise, license, permit, judgment, decree, order, statute, rule or regulation applicable to the Company or any of its Subsidiaries or violate any provision of the charter or by-laws of the Company or any of its Subsidiaries, except for such consents or waivers which have already been obtained and are in full force and effect.

(s) The Company has authorized and outstanding capital stock as set forth under the caption “Description of Capital Stock” in the Statutory Prospectus and the Prospectus. The Shares have been duly authorized for issuance by the Company. All of the issued and outstanding shares of Common Stock have been duly and validly issued and are fully paid and nonassessable. There are no statutory preemptive or other similar rights to subscribe for or to purchase or acquire any shares of Common Stock of the Company or any of its Subsidiaries or any such rights pursuant to its Certificate of Incorporation or by-laws or any agreement or instrument to or by which the Company or any of its Subsidiaries is a party or bound. The Shares, when issued and sold pursuant to this Agreement, will be duly and validly issued, fully paid and nonassessable and none of them will be issued in violation of any preemptive or other similar right. Except as disclosed in the Registration Statement, the Statutory Prospectus and the Prospectus, there is no outstanding option, warrant or other right calling for the issuance of, and there is no commitment, plan or arrangement to issue, any share of stock of the Company or any of its Subsidiaries or any security convertible into, or exercisable or exchangeable for, such stock. The exercise price of each option to acquire Common Stock (each, a “Company Stock Option”) is no less than the fair market value of a share of Common Stock as determined on the date of grant of such Company Stock Option. All grants of Company Stock Options were validly issued and properly approved by the Board of Directors of the Company in material compliance with all applicable laws and the terms of the plans under which such Company Stock Options were issued and were recorded on the Company Financial Statements, in accordance with GAAP, and no such grants involved any “back dating”, “forward dating,” “spring loading” or similar practices with respect to the effective date of grant. The Common Stock and the Shares conform in all material respects to all statements in relation thereto contained in the Registration Statement and the Statutory Prospectus and the Prospectus. All outstanding shares of capital stock of each of the Company’s Subsidiaries have been duly authorized and validly issued, and are fully paid and nonassessable and are owned directly by the Company or by another wholly-owned Subsidiary of the Company free and clear of any security interests, liens, encumbrances, equities or claims, other than those described in the Statutory Prospectus and the Prospectus.

(t) No holder of any security of the Company has any right, which has not been waived, to have any security owned by such holder included in the Registration Statement or to demand registration of any security owned by such holder for a period of 180 days after the date of this Agreement. Each director and executive officer of the Company and each stockholder of the Company listed on Schedule II hereto has delivered to the Representative its enforceable written lock-up agreement in the form attached to this Agreement as Exhibit A hereto (each, a “Lock-Up Agreement”).

(u) There are no legal or governmental proceedings pending to which the Company or any of its Subsidiaries is a party or of which any property of the Company or any of its Subsidiaries is the subject which, if determined adversely to the Company or any of its Subsidiaries could individually or in the aggregate have a Material Adverse Effect; and, to the knowledge of the Company, no such proceedings are threatened or contemplated by governmental authorities or threatened by others.

(v) All necessary corporate action has been duly and validly taken by the Company and to authorize the execution, delivery and performance of this Agreement and the issuance and sale of the Shares by the Company.

(w) Neither the Company nor any of its Subsidiaries is not involved in any labor dispute nor, to the knowledge of the Company, is any such dispute threatened, which dispute would have a Material Adverse Effect. The Company is not aware of any existing or imminent labor disturbance by the employees of any of its principal suppliers or contractors which would have a Material Adverse Effect. The Company is not aware of any threatened or pending litigation between the Company or its Subsidiaries and any of its executive officers which, if adversely determined, could have a Material Adverse Effect.

(x) No transaction has occurred between or among the Company and any of its officers or directors, shareholders or any affiliate or affiliates of any such officer, director or shareholder that is required to be described in and is not described in the Registration Statement, the Statutory Prospectus and the Prospectus.

(y) The Company has not taken, nor will it take, directly or indirectly, any action designed to or which might reasonably be expected to cause or result in, or which has constituted or which might reasonably be expected to constitute, the stabilization or manipulation of the price of the Common Stock or any security of the Company to facilitate the sale or resale of any of the Shares.

(z) The Company and each of its Subsidiaries has filed all Federal, state, local and foreign tax returns which are required to be filed through the date hereof, which returns are true and correct in all material respects or has received timely extensions thereof, and has paid all taxes shown on such returns and all assessments received by it to the extent that the same are material and have become due. There are no tax audits or investigations pending, which if adversely determined would have a Material Adverse Effect; nor are there any material proposed additional tax assessments against the Company or any of its Subsidiaries.

(aa) The Shares have been approved for quotation on the NASDAQ Capital Market, subject only to official notice of issuance.

(bb) The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or the quotation of the Common Stock on the NASDAQ Capital Market, nor has the Company received any notification that the Commission or the NASDAQ Capital Market is contemplating terminating such registration or quotation.

(cc) The books, records and accounts of the Company and its Subsidiaries accurately and fairly reflect, the transactions in, and dispositions of, the assets of, and the results of operations of, the Company and its Subsidiaries. The Company and each of its Subsidiaries maintains a system of internal accounting controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in accordance 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.

(dd) Except as disclosed in the Registration Statement, the Statutory Prospectus and the Prospectus, the Company maintains a system of disclosure controls and procedures (as such term is defined in Rule 13a-15 under the Exchange Act), which: (i) are designed to ensure that material information relating to the Company is made known to the Company's principal executive officer and its principal financial officer by others within the Company; (ii) provide for the periodic evaluation of the effectiveness of such disclosure controls and procedures at the end of the periods in which the periodic reports are required to be prepared; and (iii) are effective in all material respects to perform the functions for which they were established.

(ee) Based on the evaluation of its disclosure controls and procedures, the Company is not aware of (i) any material weakness or significant deficiency in the design or operation of internal controls which could adversely affect the Company's ability to record, process, summarize and report financial data or any material weaknesses in internal controls; or (ii) any fraud, whether or not material, that involves management or other employees who have a role in the Company's internal controls.

(ff) Except as described in the Statutory Prospectus and the Prospectus and as preapproved in accordance with the requirements set forth in Section 10A of the Exchange Act, the Auditor has not been engaged by the Company to perform any "prohibited activities" (as defined in Section 10A of the Exchange Act).

(gg) Except as described in the Statutory Prospectus and the Prospectus, there are no material off-balance sheet arrangements (as defined in Item 303 of Regulation S-K) that have or are reasonably likely to have a material current or future effect on the Company's financial condition, revenues or expenses, changes in financial condition, results of operations, liquidity, capital expenditures or capital resources.

(hh) The Company's Board of Directors has validly appointed an audit committee whose composition satisfies the requirements of Rule 5605 of the NASDAQ Stock Market and the Board of Directors and/or the audit committee has adopted a charter that satisfies the requirements of Rule 5605 of the NASDAQ Stock Market.

(ii) There is and has been no failure on the part of the Company or any of its directors or officers, in their capacities as such, to comply with any provision of the Sarbanes-Oxley Act of 2002, including, without limitation, Section 402 related to loans and Sections 302 and 906 related to certifications.

(jj) The Company and its Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are customary in the businesses in which they are engaged or propose to engage after giving effect to the transactions described in the Statutory Prospectus and the Prospectus; all policies of insurance and fidelity or surety bonds insuring the Company or any of its Subsidiaries or the Company's or its

Subsidiaries' respective businesses, assets, employees, officers and directors are in full force and effect; the Company and each of its Subsidiaries are in compliance with the terms of such policies and instruments in all material respects; and neither the Company nor any Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that is not materially greater than the current cost. Neither the Company nor any of its Subsidiaries has been denied any insurance coverage which it has sought or for which it has applied.

(kk) Each approval, consent, order, authorization, designation, declaration or filing of, by or with any regulatory, administrative or other governmental body necessary in connection with the execution and delivery by the Company of this Agreement and the consummation of the transactions herein contemplated required to be obtained or performed by the Company (except such additional steps as may be required by the Financial Industry Regulatory Authority ("FINRA") or may be necessary to qualify the Shares for public offering by the Underwriters under the state securities or Blue Sky laws) has been obtained or made and is in full force and effect.

(ll) There are no affiliations with FINRA among the Company's officers, directors or, to the best of the knowledge of the Company, any five percent or greater stockholder of the Company, except as set forth in the Registration Statement or otherwise disclosed in writing to the Representative.

(mm) The Company does not expect to be a Passive Foreign Investment Company ("PFIC") within the meaning of Section 1297(a) of the United States Internal Revenue Code of 1986, as amended, and the regulations and published interpretations thereunder for the year ended December 31, 2009, and has no plan or intention to conduct its business in a manner that would be reasonably expected to result in the Company becoming a PFIC in the future under current laws and regulations.

(nn) (i) Each of the Company and each of its Subsidiaries is in compliance in all material respects with all rules, laws and regulation relating to the use, treatment, storage and disposal of toxic substances and protection of health or the environment ("Environmental Law") which are applicable to its business; (ii) neither the Company nor its Subsidiaries has received any written notice from any governmental authority or third party of an asserted claim under Environmental Laws; (iii) each of the Company and each of its Subsidiaries has received all permits, licenses or other approvals required of it under applicable Environmental Laws to conduct its business and is in compliance with all terms and conditions of any such permit, license or approval; (iv) to the Company's knowledge, no facts currently exist that will require the Company or any of its Subsidiaries to make future material capital expenditures to comply with Environmental Laws; and (v) no property which is or has been owned, leased or occupied by the Company or its Subsidiaries has been designated as a Superfund site pursuant to the Comprehensive Environmental Response, Compensation of Liability Act of 1980, as amended (42 U.S.C. Section 9601, et. seq.) or otherwise designated as a contaminated site under applicable state or local law. Neither the Company nor any of its Subsidiaries has been named as a "potentially responsible party" under the CERCLA 1980.

(oo) [RESERVED]

(pp) The Company is not and, after giving effect to the offering and sale of the Shares and the application of proceeds thereof as described in the Statutory Prospectus and the Prospectus, will not be an “investment company” within the meaning of the Investment Company Act of 1940, as amended (the “Investment Company Act”).

(qq) Neither the Company, nor to the knowledge of the Company, any other person associated with or acting on behalf of the Company including, without limitation, any director, officer, agent or employee of the Company or its Subsidiaries, have not, directly or indirectly, while acting on behalf of the Company or its Subsidiaries (i) used any corporate funds for unlawful contributions, gifts, entertainment or other unlawful expenses relating to political activity; (ii) made any unlawful payment to foreign or domestic government officials or employees or to foreign or domestic political parties or campaigns from corporate funds; (iii) violated any provision of the Foreign Corrupt Practices Act of 1977, as amended; or (iv) made any other unlawful payment.

(rr) The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance, in all material respects, with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all applicable jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the “Money Laundering Laws”) and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its Subsidiaries with respect to the Money Laundering Laws is pending, or to the best knowledge of the Company, threatened.

(ss) Neither the Company nor any of its Subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company or any of its Subsidiaries is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department (“OFAC”); and the Company will not directly or indirectly use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any Subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(tt) Except as described in the Statutory Prospectus and the Prospectus, the Company has not sold or issued any shares of Common Stock during the six-month period preceding the date of the Prospectus, including any sales pursuant to Rule 144A under, or Regulations D or S of, the Securities Act, other than shares issued pursuant to employee benefit plans, qualified stock options plans or other employee compensation plans or pursuant to outstanding options, rights or warrants.

(uu) The Company has fulfilled its obligations, if any, under the minimum funding standards of Section 302 of the U.S. Employee Retirement Income Security Act of 1974 (“ERISA”) and the regulations and published interpretations thereunder with respect to each “plan” as defined in Section 3(3) of ERISA and such regulations and published interpretations in

which its employees are eligible to participate and each such plan is in compliance in all material respects with the presently applicable provisions of ERISA and such regulations and published interpretations. No “Reportable Event” (as defined in 12 ERISA) has occurred with respect to any “Pension Plan” (as defined in ERISA) for which the Company could have any liability.

(vv) None of the Company, its directors or its officers has distributed nor will distribute prior to the later of (i) the Firm Shares Closing Date or the Option Shares Closing Date, and (ii) completion of the distribution of the Shares, any offering material in connection with the offering and sale of the Shares other than any Preliminary Prospectus, the Prospectus, the Registration Statement and other materials, if any, permitted by the Securities Act and consistent with the terms of this Agreement.

(ww) Since that date of the Preliminary Prospectus included in the Registration Statement filed with the Commission on October 22, 2019 (or, if earlier, the first date on which the Company engaged directly or through any Person authorized to act on its behalf in any Testing-the-Waters Communication (as defined herein)) through the date hereof, the Company has been and is an “emerging growth company,” as defined in Section 2(a) of the Securities Act (an “Emerging Growth Company”). “Testing-the-Waters Communication” means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Securities Act.

(xx) The Company (a) has not alone engaged in any Testing-the-Waters Communications, other than Testing-the-Waters Communications with entities that are qualified institutional buyers within the meaning of Rule 144A under the Securities Act or institutions that are accredited investors within the meaning of Rule 501 under the Securities Act without the consent of the Representatives, and (b) has not authorized anyone other than the Representative to engage in Testing-the-Waters Communications. The Company reconfirms that the Representative has been authorized to act on its behalf in undertaking Testing-the-Waters Communications. The Company has not distributed any Written Testing-the-Waters Communications (as defined herein) other than those listed on Schedule III hereto. “Written Testing-the-Waters Communication” means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act.

(yy) There is no legal or governmental proceeding to which the Company or any subsidiary is a party or of which any property or assets of the Company or any subsidiary is the subject, including any proceeding before the United States Food and Drug Administration of the U.S. Department of Health and Human Services (“FDA”) or comparable federal, state, local or non-U.S. governmental bodies (it being understood that the interaction between the Company and the FDA and such comparable governmental bodies relating to the clinical development and product approval process shall not be deemed proceedings for purposes of this representation), which is required to be described in the Registration Statement, the General Disclosure Package or the Prospectus or a document incorporated by reference therein and is not described therein, or which, singularly or in the aggregate, if determined adversely to the Company or any subsidiary, would reasonably be expected to have a Material Adverse Effect; and to the Company’s knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others. The Company and each Subsidiary is in substantial compliance with all applicable federal, state, local and, to the Company’s knowledge, non-U.S., laws, regulations,

orders and decrees governing its business as prescribed by the FDA, or any other federal, state or, to the Company's knowledge, non-U.S., agencies or bodies engaged in the regulation of pharmaceuticals, except where noncompliance would not, singularly or in the aggregate, have a Material Adverse Effect. All preclinical studies and clinical trials conducted by or on behalf of the Company and any Subsidiary to support approval for commercialization of the Company's or any Subsidiary's products have been conducted by the Company or any Subsidiary, as applicable, or to the Company's knowledge, by third parties, in compliance with all applicable federal, state or, to the Company's knowledge, non-U.S., laws, rules, orders and regulations, except for such failure or failures to be in compliance as would not reasonably be expected to have, singularly or in the aggregate, a Material Adverse Effect.

(zz) The Company and its subsidiaries own, or have obtained licenses for, or other rights to use, the inventions, patent applications, patents, trademarks (both registered and unregistered), trade names, service names, copyrights, trade secrets and other proprietary information described in the Registration Statement, the General Disclosure Package and the Prospectus, necessary for the conduct of their respective businesses as currently conducted (including the commercialization of products or services described in the Registration Statement, the General Disclosure Package and the Prospectus, as currently under development) (collectively, "Intellectual Property"), except where the failure to own, license or have such rights would not, individually or in the aggregate, have a Material Adverse Effect. Except as otherwise disclosed in the Registration Statement, the General Disclosure Package and the Prospectus and except as would not, individually or in the aggregate, have a Material Adverse Effect, (i) there are no third parties who have or, to the Company's knowledge, will be able to establish rights to any Intellectual Property owned by the Company or any of its subsidiaries ("Company Intellectual Property"), except for any third parties to whom the Company or any of its subsidiaries has granted licenses to the Company Intellectual Property pursuant to written license agreements in the ordinary course of business; (ii) to the Company's knowledge, there is no infringement by third parties of any Company Intellectual Property; (iii) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the Company's rights in or to any Intellectual Property of the Company or its subsidiaries, and the Company is unaware of any facts which could form a reasonable basis for any such action, suit, proceeding or claim; (iv) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the validity, enforceability or scope of any Company Intellectual Property, and the Company is unaware of any facts which could form a reasonable basis for any such action, suit, proceeding or claim; (v) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others that the Company or any subsidiary infringes or otherwise violates, or would, upon the commercialization of any product or service described in the Registration Statement, the General Disclosure Package and the Prospectus as under development, infringe or violate, any patent, trademark, trade name, service name, copyright, trade secret or other proprietary rights of others, and the Company is unaware of any facts which could form a reasonable basis for any such action, suit, proceeding or claim; (vi) the Company and its Subsidiaries are in substantial compliance with the terms of each agreement pursuant to which Intellectual Property has been licensed to the Company or any subsidiary, except where the failure to be in compliance would not, individually or in the aggregate, be reasonably likely to have a Material Adverse Effect, and all such agreements are in full force and effect; (vii) to the Company's knowledge, there is no

patent or patent application, that contains claims that interfere with the issued or pending claims of any patent or patent application included in the Company Intellectual Property or that challenges the validity, enforceability or scope of any patent included in the Company Intellectual Property; and (viii) the Company has disclosed to the United States Patent and Trademark Office all prior art within the possession of the Company that may render any patent application within the Company Intellectual Property unpatentable or the failure to disclose of which may render any patent issued thereon unenforceable.

3. Reserved.

4. Conditions of the Underwriters' Obligations. The obligations of the Underwriters under this Agreement are several and not joint. The respective obligations of the Underwriters to purchase the Shares are subject to each of the following terms and conditions:

(a) Notification that the Registration Statement has become effective shall have been received by the Representative and the Prospectus shall have been timely filed with the Commission in accordance with Section 5(a) of this Agreement and any material required to be filed by the Company pursuant to Rule 433(d) of the Rules shall have been timely filed with the Commission in accordance with such rule.

(b) No order preventing or suspending the use of any Preliminary Prospectus, the Prospectus or any "free writing prospectus" (as defined in Rule 405 of the Rules), shall have been or shall be in effect and no order suspending the effectiveness of the Registration Statement shall be in effect and no proceedings for such purpose shall be pending before or threatened by the Commission, and any requests for additional information on the part of the Commission (to be included in the Registration Statement or the Prospectus or otherwise) shall have been complied with to the satisfaction of the Commission and the Representative. If the Company has elected to rely upon Rule 430A, Rule 430A information previously omitted from the effective Registration Statement pursuant to Rule 430A shall have been transmitted to the Commission for filing pursuant to Rule 424(b) within the prescribed time period and the Company shall have provided evidence satisfactory to the Underwriters of such timely filing, or a post-effective amendment providing such information shall have been promptly filed and declared effective in accordance with the requirements of Rule 430A.

(c) The representations and warranties of the Company contained in this Agreement and in the certificates delivered pursuant to Section 4(d) shall be true and correct when made and on and as of each Closing Date as if made on such date. The Company shall have performed all covenants and agreements and satisfied all the conditions contained in this Agreement required to be performed or satisfied by them at or before such Closing Date.

(d) The Representative shall have received on each Closing Date a certificate, addressed to the Representative and dated such Closing Date, of the chief executive or chief operating officer and the chief financial officer or chief accounting officer of the Company, in their capacity as such officers, to the effect that: (i) the representations, warranties and agreements of the Company in this Agreement were true and correct when made and are true and correct as of such Closing Date; (ii) the Company has performed all covenants and agreements

and satisfied all conditions contained herein; (iii) they have carefully examined the Registration Statement, the Prospectus, the General Disclosure Package, and any individual Issuer Free Writing Prospectus and, in their opinion (A) as of the Effective Date the Registration Statement and Prospectus did not include, and as of the Applicable Time, neither (i) the General Disclosure Package, nor (ii) any individual Issuer Free Writing Prospectus, when considered together with the General Disclosure Package, included, any untrue statement of a material fact and did not omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, and (B) since the Effective Date no event has occurred which should have been set forth in a supplement or otherwise required an amendment to the Registration Statement, the Statutory Prospectus or the Prospectus; (iv) no stop order suspending the effectiveness of the Registration Statement has been issued and, to their knowledge, no proceedings for that purpose have been instituted or are pending under the Securities Act and (v) there has not occurred any material adverse change in the assets, properties, condition, financial or otherwise, or in the results of operations, business affairs or business prospects of the Company and its Subsidiaries considered as a whole.

(e) The Representative shall have received: (i) simultaneously with the execution of this Agreement a signed letter from the Auditor addressed to the Representative and dated the date of this Agreement, in form and substance reasonably satisfactory to the Representative, containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in the Registration Statement and the General Disclosure Package, and (ii) on each Closing Date, a signed letter from the Auditor addressed to the Representative and dated the Closing Date, in form and substance reasonably satisfactory to the Representative containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in the Registration Statement and the Prospectus.

(f) The Representative shall have received on each Closing Date from Wilson Sonsini Goodrich & Rosati, a Professional Corporation, counsel for the Company, an opinion and negative assurance statement, addressed to the Representative and dated such Closing Date, in form and substance reasonably satisfactory to the Representative.

(g) The Representative shall have received on each Closing Date from Cooley LLP, intellectual property counsel for the Company, an opinion and negative assurance statement, addressed to the Representative, in form and substance reasonably satisfactory to the Representative.

(h) The Representative shall have received on each Closing Date from Ellenoff Grossman & Schole LLP, counsel for the Representative, an opinion and negative assurance statement, addressed to the Representative and dated such Closing Date, in form and substance reasonably satisfactory to the Representative.

(i) All proceedings taken in connection with the sale of the Firm Shares and the Option Shares as herein contemplated shall be reasonably satisfactory in form and substance to the Representative, and its counsel.

(j) The Representative shall have received copies of the Lock-up Agreements executed by each entity or person listed on Schedule II hereto.

(k) The Shares shall have been approved for quotation on the NASDAQ Capital Market, subject only to official notice of issuance.

(l) The Representative shall be reasonably satisfied that since the respective dates as of which information is given in the Registration Statement, the Statutory Prospectus, the General Disclosure Package and the Prospectus, (i) there shall not have been any material change in the capital stock of the Company or any material change in the indebtedness (other than in the ordinary course of business) of the Company, (ii) except as set forth or contemplated by the Registration Statement, the Statutory Prospectus, the General Disclosure Package or the Prospectus, no material oral or written agreement or other transaction shall have been entered into by the Company that is not in the ordinary course of business or that could reasonably be expected to result in a material reduction in the future earnings of the Company, (iii) no loss or damage (whether or not insured) to the property of the Company shall have been sustained that had or could reasonably be expected to have a Material Adverse Effect, (iv) no legal or governmental action, suit or proceeding affecting the Company or any of its properties that is material to the Company or that affects or could reasonably be expected to affect the transactions contemplated by this Agreement shall have been instituted or threatened and (v) there shall not have been any material change in the assets, properties, condition (financial or otherwise), or in the results of operations, business affairs or business prospects of the Company or its Subsidiaries considered as a whole that makes it impractical or inadvisable in the Representative's judgment to proceed with the purchase or offering of the Firm Shares as contemplated hereby.

(m) On the Firm Shares Closing Date, FINRA shall have confirmed that it has not raised any objection with respect to the fairness and reasonableness of the underwriting terms and agreements in connection with the offering of the Shares.

(n) The Company shall have furnished or caused to be furnished to the Representative such further certificates or documents as the Representative shall have reasonably requested.

5. Covenants and other Agreements of the Company and the Underwriters.

(a) The Company covenants and agrees as follows:

(i) The Company will use its reasonable best efforts to cause the Registration Statement, if not effective at the time of execution of this Agreement, and any amendments thereto, to become effective as promptly as possible. The Company shall prepare the Prospectus in a form approved by the Representative and file such Prospectus pursuant to Rule 424(b) under the Securities Act not later than the Commission's close of business on the second business day following the execution and delivery of this Agreement, or, if applicable, such earlier time as may be required by the Rules. The Company will file with the Commission all Issuer Free Writing Prospectuses in the time and manner required under Rules 433(d) or 163(b)(2), as the case may be.

(ii) The Company shall promptly advise the Representative in writing (A) when any post-effective amendment to the Registration Statement shall have become effective or any supplement to the Prospectus shall have been filed, (B) of any request by the Commission for any amendment of the Registration Statement or the Prospectus or for any additional information, (C) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of any order preventing or suspending the use of any preliminary prospectus or any “free writing prospectus”, as defined in Rule 405 of the Rules, or the institution or threatening of any proceeding for that purpose and (D) of the receipt by the Company of any notification with respect to the suspension of the qualification of the Shares for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose. The Company shall not file any amendment of the Registration Statement or supplement to the Prospectus or any document incorporated by reference in the Registration Statement or any Issuer Free Writing Prospectus unless the Company has furnished the Representative a copy for its review prior to filing and shall not file any such proposed amendment or supplement to which the Representative reasonably objects. The Company shall use its best efforts to prevent the issuance of any such stop order and, if issued, to obtain as soon as possible the withdrawal thereof.

(iii) If, at any time when a prospectus relating to the Shares (or, in lieu thereof, the notice referred to in Rule 173(a) of the Rules) is required to be delivered under the Securities Act, any event occurs as a result of which the Prospectus as then amended or supplemented would include any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein in the light of the circumstances under which they were made not misleading, or if it shall be necessary to amend or supplement the Prospectus to comply with the Securities Act or the Rules, the Company promptly shall prepare and file with the Commission, subject to the second sentence of paragraph (ii) of this Section 5(a), an amendment or supplement which shall correct such statement or omission or an amendment which shall effect such compliance.

(iv) If at any time following issuance of an Issuer Free Writing Prospectus there occurs an event or development as a result of which such Issuer Free Writing Prospectus would conflict with the information contained in the Registration Statement or would include an untrue statement of a material fact or would omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances prevailing at the subsequent time, not misleading, the Company will promptly notify the Representative and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(v) The Company shall make generally available to its security holders and to the Representative as soon as practicable, but not later than 45 days after the end of the 12-month period beginning at the end of the fiscal quarter of the Company during which the Effective Date occurs (or 90 days if such 12-month period coincides with the Company's fiscal year), an earning statement (which need not be audited) of the Company, covering such 12-month period, which shall satisfy the provisions of Section 11(a) of the Securities Act or Rule 158 of the Rules; provided that the Company will be deemed to have furnished such earnings statement to its security holders and the Representative to the extent that it is filed with the Commission pursuant to EDGAR.

(vi) The Company shall furnish to the Representative and counsel for the Underwriters, without charge, signed copies of the Registration Statement (including all exhibits thereto and amendments thereof) and to each other Underwriter a copy of the Registration Statement (without exhibits thereto) and all amendments thereof and, so long as delivery of a prospectus by an Underwriter or dealer may be required by the Securities Act or the Rules, as many copies of any Preliminary Prospectus, any Issuer Free Writing Prospectus and the Prospectus and any amendments thereof and supplements thereto as the Representative may reasonably request. If applicable, the copies of the Registration Statement, Preliminary Prospectus, any Issuer Free Writing Prospectus and Prospectus and each amendment and supplement thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(vii) The Company shall cooperate with the Representative and their counsel in endeavoring to qualify the Shares for offer and sale in connection with the offering under the laws of such jurisdictions as the Representative may designate and shall maintain such qualifications in effect so long as required for the distribution of the Shares; provided, however, that the Company shall not be required in connection therewith, as a condition thereof, to qualify as a foreign corporation or to execute a general consent to service of process in any jurisdiction or subject itself to taxation as doing business in any jurisdiction.

(viii) The Company, during the period when the Prospectus (or in lieu thereof, the notice referred to in Rule 173(a) of the Rules) is required to be delivered under the Securities Act and the Rules or the Exchange Act, will file all reports and other documents required to be filed with the Commission pursuant to Section 13, 14 or 15 of the Exchange Act within the time periods required by the Exchange Act and the regulations promulgated thereunder.

(ix) Without the prior written consent of Oppenheimer & Co. Inc., for a period of 90 days after the date of this Agreement, the Company and each of its individual directors and executive officers shall not issue, sell

or register with the Commission (other than on Form S-8 or on any successor form), or otherwise dispose of, directly or indirectly, any equity securities of the Company (or any securities convertible into, exercisable for or exchangeable for equity securities of the Company), except for (i) the issuance of the Shares pursuant to the Registration Statement, and (ii) the issuance of shares pursuant to the Company's existing stock option plan or bonus plan as described in the Registration Statement and the Prospectus.

(x) On or before completion of this offering, the Company shall make all filings required under applicable securities laws and by NASDAQ (including any required registration under the Exchange Act).

(xi) Prior to the Closing Date, the Company will issue no press release or other communications directly or indirectly and hold no press conference with respect to the Company, the condition, financial or otherwise, or the earnings, business affairs or business prospects of any of them, or the offering of the Shares without the prior written consent of the Representative unless in the judgment of the Company and its counsel, and after notification to the Representative, such press release or communication is required by law.

(xii) The Company will apply the net proceeds from the offering of the Firm Shares in the manner set forth under "Use of Proceeds" in the Prospectus.

(xiii) The Company will promptly notify the Representative if the Company ceases to be an Emerging Growth Company at any time prior to the completion of the 90-day restricted period referred to in Section 5(a)(ix) hereof.

(xiv) If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representative and will promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission.

- (a) The Company agrees to pay, or reimburse if paid by the Representative, whether or not the transactions contemplated hereby are consummated or this Agreement is terminated, all costs and expenses incident to the public offering of the Shares and the performance of the obligations of the Company under this Agreement including those relating to: (i) the preparation, printing, reproduction filing and distribution of the Registration Statement including all exhibits thereto, each Preliminary Prospectus, the Prospectus, any Issuer Free Writing Prospectus, all amendments and supplements thereto and any

document incorporated by reference therein, and the printing, filing and distribution of this Agreement; (ii) the preparation and delivery of the Shares to the Underwriters; (iii) the registration or qualification of the Shares for offer and sale under the securities or Blue Sky laws of the various jurisdictions referred to in Section 5(a)(vi), including the reasonable fees and disbursements of counsel for the Underwriters in connection with such registration and qualification and the preparation, printing, distribution and shipment of preliminary and supplementary Blue Sky memoranda; (iv) the furnishing (including costs of shipping and mailing) to the Representative and to the Underwriters of copies of each Preliminary Prospectus, the Prospectus and all amendments or supplements to the Prospectus, any Issuer Free Writing Prospectus, and of the several documents required by this Section to be so furnished, as may be reasonably requested for use in connection with the offering and sale of the Shares by the Underwriters or by dealers to whom Shares may be sold; (v) the filing fees of FINRA in connection with its review of the terms of the public offering and reasonable fees and disbursements of counsel for the Underwriters in connection with such review; (vi) inclusion of the Shares for quotation on the NASDAQ Capital Market, (vii) all transfer taxes, if any, with respect to the sale and delivery of the Shares by the Company to the Underwriters, and (viii) all reasonable out-of-pocket costs and reasonable expenses incident to the offering and the performance of the obligations of the Representative under this Agreement, up to \$100,000 in the aggregate, which amount shall include the fees and expenses of counsel to the Underwriters. Subject to the provisions of Section 8, the Underwriters agree to pay, whether or not the transactions contemplated hereby are consummated or this Agreement is terminated, all costs and expenses incident to the performance of the obligations of the Underwriters under this Agreement not payable by the Company pursuant to the preceding sentence, including, without limitation, the fees and disbursements of counsel for the Underwriters.

- (b) The Company acknowledges and agrees that each of the Underwriters has acted and is acting solely in the capacity of a principal in an arm's length transaction between the Company, on the one hand, and the Underwriters, on the other hand, with respect to the offering of Shares contemplated hereby (including in connection with determining the terms of the offering) and not as a financial advisor, agent or fiduciary to the Company or any other person. Additionally, the Company acknowledges and agrees that the Underwriters have not and will not advise the Company or any other person as to any legal, tax, investment, accounting or regulatory matters in any jurisdiction. The Company has consulted with its own advisors concerning such matters and shall be responsible for making its own independent investigation and appraisal of the transactions contemplated hereby, and the Underwriters shall have no responsibility or liability to the Company or any other person with respect thereto, whether arising prior to or after the date hereof. Any review by the Underwriters of the Company, the transactions contemplated hereby or other matters relating to such transactions have been and will be performed solely for the benefit of the Underwriters and shall not be on behalf of the Company. The Company agrees that it will not claim that the Underwriters, or any of them, has rendered advisory services of any nature or respect, or owes a fiduciary duty to the Company or any other person in connection with any such transaction or the process leading thereto.

(c) The Company acknowledges and agrees that each of the Underwriters has acted and is acting solely in the capacity of a principal in an arm's length transaction between the Company, on the one hand, and the Underwriters, on the other hand, with respect to the offering of the Shares contemplated hereby (including in connection with determining the terms of the offering) and not as a financial advisor, agent or fiduciary to the Company or any other person. Additionally, the Company acknowledges and agrees that the Underwriters have not and will not advise the Company or any other person as to any legal, tax, investment, accounting or regulatory matters in any jurisdiction. The Company has consulted with its own advisors concerning such matters and shall be responsible for making its own independent investigation and appraisal of the transactions contemplated hereby, and the Underwriters shall have no responsibility or liability to the Company or any other person with respect thereto, whether arising prior to or after the date hereof. Any review by the Underwriters of the Company, the transactions contemplated hereby or other matters relating to such transactions have been and will be performed solely for the benefit of the Underwriters and shall not be on behalf of the Company. The Company agrees that it will not claim that the Underwriters, or any of them, has rendered advisory services of any nature or respect, or owes a fiduciary duty to the company or any other person in connection with any such transaction or the process leading thereto.

(d) The Company represents and agrees that, unless it obtains the prior consent of the Representative, and each Underwriter represents and agrees that, unless it obtains the prior consent of the Company and the Representative, it has not made and will not make any offer relating to the Shares that would constitute an "issuer free writing prospectus," as defined in Rule 433, or that would otherwise constitute a "free writing prospectus," as defined in Rule 405, required to be filed with the Commission. The Company has complied and will comply with the requirements of Rule 433 under the Act applicable to any Issuer Free Writing Prospectus, including timely filing with the Commission where required, legending and record keeping. The Company represents that it has satisfied and agrees that it will satisfy the conditions set forth in Rule 433 of the Rules to avoid a requirement to file with the Commission any Road Show.

6. Indemnification.

(a) The Company agrees to indemnify and hold harmless each Underwriter, its officers and employees and each person, if any, who controls any Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all losses, claims, damages and liabilities, joint or several (including any reasonable investigation, legal and other expenses incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claim asserted), to which they, or any of them, may become subject under the Securities Act, the Exchange Act or other Federal or state law or regulation, at common law or otherwise, insofar as such losses, claims, damages or liabilities arise out of or are based upon any untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, the Registration Statement, the Statutory Prospectus, the Prospectus, any Issuer Free Writing Prospectus or any "issuer-information" filed or required to be filed pursuant to Rule 433(d) of the Rules, any amendment thereof or supplement thereto, any Written Testing-the-Waters Communication, or in any Blue Sky application or other information or other documents executed by the Company filed in any state or other jurisdiction to qualify any or all of the Shares under the securities laws thereof (any such application, document or information being hereinafter referred to as a "Blue Sky Application")

or arise out of or are based upon any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading; provided, however, that such indemnity shall not inure to the benefit of any Underwriter (or any person controlling such Underwriter) on account of any losses, claims, damages or liabilities arising from the sale of the Shares to any person by such Underwriter if such untrue statement or omission or alleged untrue statement or omission was made in such Preliminary Prospectus, the Registration Statement, the Prospectus, the Statutory Prospectus, any Issuer Free Writing Prospectus or such amendment or supplement thereto, any Written Testing-the-Waters Communication, or in any Blue Sky Application in reliance upon and in conformity with the Underwriter Information. This indemnity and expense reimbursement agreement will be in addition to any liability which the Company may otherwise have.

(b) Each Underwriter, severally and not jointly, agrees to indemnify and hold harmless the Company, and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, each director of the Company, and each officer of the Company who signs the Registration Statement, against any losses, claims, damages or liabilities (including any reasonable investigation, legal and other expenses incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claim asserted) to which such party may become subject, under the Securities Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, the Registration Statement or the Prospectus, or any amendment or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in any Preliminary Prospectus, the Registration Statement, the Statutory Prospectus or the Prospectus or any such amendment or supplement in reliance upon and in conformity with the Underwriter Information; provided, however, that the obligation of each Underwriter to indemnify the Company (including any controlling person, director or officer thereof) shall be limited to the amount of the underwriting discounts and commissions applicable to the Shares to be purchased by such Underwriter hereunder.

(c) Any party that proposes to assert the right to be indemnified under this Section will, promptly after receipt of notice of commencement of any action, suit or proceeding against such party in respect of which a claim is to be made against an indemnifying party or parties under this Section, notify each such indemnifying party of the commencement of such action, suit or proceeding, enclosing a copy of all papers served. No indemnification provided for in Section 6(a) or 6(b) shall be available to any party who shall fail to give notice as provided in this Section 6(c) if the party to whom notice was not given was unaware of the proceeding to which such notice would have related and was prejudiced by the failure to give such notice but the omission so to notify such indemnifying party of any such action, suit or proceeding shall not relieve it from any liability that it may have to any indemnified party for contribution or otherwise than under this Section. In case any such action, suit or proceeding shall be brought against any indemnified party and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate in, and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof,

with counsel reasonably satisfactory to such indemnified party, and after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof and the approval by the indemnified party of such counsel, the indemnifying party shall not be liable to such indemnified party for any legal or other expenses, except as provided below and except for the reasonable costs of investigation subsequently incurred by such indemnified party in connection with the defense thereof. The indemnified party shall have the right to employ its counsel in any such action, but the fees and expenses of such counsel shall be at the expense of such indemnified party unless (i) the employment of counsel by such indemnified party has been authorized in writing by the indemnifying parties, (ii) the indemnified party shall have been advised by counsel that there may be one or more legal defenses available to it which are different from or in addition to those available to the indemnifying party (in which case the indemnifying parties shall not have the right to direct the defense of such action on behalf of the indemnified party) or (iii) the indemnifying parties shall not have employed counsel to assume the defense of such action within a reasonable time after notice of the commencement thereof, in each of which cases the fees and expenses of counsel shall be at the expense of the indemnifying parties. An indemnifying party shall not be liable for any settlement of any action, suit, and proceeding or claim effected without its written consent, which consent shall not be unreasonably withheld or delayed.

(d) No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any indemnified party is a party or could be named and indemnity was or would be sought hereunder by such indemnified party, unless such settlement, compromise or consent (a) includes an unconditional release of such indemnified party from all liability for claims that are the subject matter of such action, suit or proceeding and (b) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

7. Contribution. In order to provide for just and equitable contribution in circumstances in which the indemnification provided for in Section 6(a) or 6(b) is due in accordance with its terms but for any reason is unavailable to or insufficient to hold harmless an indemnified party in respect to any losses, liabilities, claims, damages or expenses referred to therein, then each indemnifying party shall contribute to the aggregate losses, liabilities, claims, damages and expenses (including any investigation, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claims asserted, but after deducting any contribution received by any person entitled hereunder to contribution from any person who may be liable for contribution) incurred by such indemnified party, as incurred, in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other hand from the offering of the Shares pursuant to this Agreement or, if such allocation is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to above but also the relative fault of the Company on the one hand and the Underwriters on the other hand in connection with the statements or omissions which resulted in such losses, liabilities, claims, damages or expenses, as well as any other relevant equitable considerations. The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 7 were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the

equitable considerations referred to above. The aggregate amount of losses, liabilities, claims, damages and expenses incurred by an indemnified party and referred to above shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue or alleged untrue statement or omission or alleged omission. Notwithstanding the provisions of this Section 7, no Underwriter (except as may be provided in the Agreement Among Underwriters) shall be required to contribute any amount in excess of the underwriting discounts and commissions applicable to the Shares purchased by such Underwriter. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 7, each person, if any, who controls an Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act shall have the same rights to contribution as such Underwriter, and each director of the Company including any person who, with his or her consent, is named in the Registration Statement as about to become a director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of the Section 15 of the Securities Act or Section 20 of the Exchange Act, shall have the same rights to contribution as the Company, as the case may be. Any party entitled to contribution will, promptly after receipt of notice of commencement of any action, suit or proceeding against such party in respect of which a claim for contribution may be made against another party or parties under this Section 7, notify such party or parties from whom contribution may be sought, but the omission so to notify such party or parties from whom contribution may be sought shall not relieve the party or parties from whom contribution may be sought from any other obligation it or they may have hereunder or otherwise than under this Section 7. No party shall be liable for contribution with respect to any action, suit, proceeding or claim settled without its written consent. The Underwriter's obligations to contribute pursuant to this Section 7 are several in proportion to their respective underwriting commitments and not joint.

8. Termination.

(a) This Agreement may be terminated with respect to the Shares to be purchased on a Closing Date by the Representative by notifying the Company at any time at or before a Closing Date in the absolute discretion of the Representative if: (i) there has occurred any material adverse change in the securities markets or any event, act or occurrence that has materially disrupted, or in the opinion of the Representative, will in the future materially disrupt, the securities markets or there shall be such a material adverse change in general financial, political or economic conditions or the effect of international conditions on the financial markets in the United States is such as to make it, in the judgment of the Representative, inadvisable or impracticable to market the Shares or enforce contracts for the sale of the Shares; (ii) there has occurred any outbreak or material escalation of hostilities or acts of terrorism or other calamity or crisis the effect of which on the financial markets of the United States is such as to make it, in the judgment of the Representative, inadvisable or impracticable to market the Shares or enforce contracts for the sale of the Shares; (iii) trading in the Shares or any securities of the Company has been suspended or materially limited by the Commission or trading generally on the New York Stock Exchange, Inc., the American Stock Exchange, Inc. or the NASDAQ has been

suspended or materially limited, or minimum or maximum ranges for prices for securities shall have been fixed, or maximum ranges for prices for securities have been required, by any of said exchanges or by such system or by order of the Commission, FINRA, or any other governmental or regulatory authority; or (iv) a banking moratorium has been declared by any state or Federal authority; or (v) in the judgment of the Representative, there has been, since the time of execution of this Agreement or since the respective dates as of which information is given in the Prospectus, any material adverse change in the assets, properties, condition, financial or otherwise, or in the results of operations, business affairs or business prospects of the Company and its Subsidiaries considered as a whole, whether or not arising in the ordinary course of business.

(b) If this Agreement is terminated pursuant to any of its provisions, the Company shall not be under any liability to any Underwriter, and no Underwriter shall be under any liability to the Company, except that (y) if this Agreement is terminated by the Representative or the Underwriters because of any failure, refusal or inability on the part of the Company to comply with the terms or to fulfill any of the conditions of this Agreement, the Company will reimburse the Underwriters for all out-of-pocket expenses (including the reasonable fees and disbursements of their counsel) incurred by them in connection with the proposed purchase and sale of the Shares or in contemplation of performing their obligations hereunder and (z) no Underwriter who shall have failed or refused to purchase the Shares agreed to be purchased by it under this Agreement, without some reason sufficient hereunder to justify cancellation or termination of its obligations under this Agreement, shall be relieved of liability to the Company or to the other Underwriters for damages occasioned by its failure or refusal.

9. Substitution of Underwriters. If any Underwriter shall default in its obligation to purchase on any Closing Date the Shares agreed to be purchased hereunder on such Closing Date, the Representative shall have the right, within 36 hours thereafter, to make arrangements for one or more of the non-defaulting Underwriters, or any other underwriters satisfactory to the Company, to purchase such Shares on the terms contained herein. If, however, the Representative shall not have completed such arrangements within such 36-hour period, then the Company shall be entitled to a further period of 36 hours within which to procure another party or other parties satisfactory to the Underwriters to purchase such Shares on such terms. If, after giving effect to any arrangements for the purchase of the Shares of a defaulting Underwriter or Underwriters by the Representative and the Company as provided above, the aggregate number of Shares which remains unpurchased on such Closing Date does not exceed one-eleventh of the aggregate number of all the Shares that all the Underwriters are obligated to purchase on such date, then the Company shall have the right to require each non-defaulting Underwriter to purchase the number of Shares which such Underwriter agreed to purchase hereunder at such date and, in addition, to require each non-defaulting Underwriter to purchase its pro rata share (based on the number of Shares which such Underwriter agreed to purchase hereunder) of the Shares of such defaulting Underwriter or Underwriters for which such arrangements have not been made; but nothing herein shall relieve a defaulting Underwriter from liability for its default. In any such case, either the Representative or the Company shall have the right to postpone the applicable Closing Date for a period of not more than seven days in order to effect any necessary changes and arrangements (including any necessary amendments or supplements to the Registration Statement or Prospectus or any other documents), and the Company agrees to file promptly any amendments to the Registration Statement or the Prospectus which in the opinion of the Company and the Underwriters and their counsel may thereby be made necessary.

If, after giving effect to any arrangements for the purchase of the Shares of a defaulting Underwriter or Underwriters by the Representative and the Company as provided above, the aggregate number of such Shares which remains unpurchased exceeds 10% of the aggregate number of all the Shares to be purchased at such date, then this Agreement, or, with respect to a Closing Date which occurs after the first Closing Date, the obligations of the Underwriters to purchase and of the Company, to sell the Option Shares to be purchased and sold on such date, shall terminate, without liability on the part of any non-defaulting Underwriter to the Company, and without liability on the part of the Company, except as provided in Sections 5(b), 6, 7 and 8. The provisions of this Section 9 shall not in any way affect the liability of any defaulting Underwriter to the Company or the nondefaulting Underwriters arising out of such default. The term "Underwriter" as used in this Agreement shall include any person substituted under this Section 9 with like effect as if such person had originally been a party to this Agreement with respect to such Shares.

10. Miscellaneous. The respective agreements, representations, warranties, indemnities and other statements of the Company and the several Underwriters, as set forth in this Agreement or made by or on behalf of them pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation (or any statement as to the results thereof) made by or on behalf of any Underwriter or the Company or any of their respective officers, directors or controlling persons referred to in Sections 6 and 7 hereof, and shall survive delivery of and payment for the Shares. In addition, the provisions of Sections 5(b), 6, 7 and 8 shall survive the termination or cancellation of this Agreement.

This Agreement has been and is made for the benefit of the Underwriters and the Company and their respective successors and assigns, and, to the extent expressed herein, for the benefit of persons controlling any of the Underwriters, or the Company, and directors and officers of the Company, and their respective successors and assigns, and no other person shall acquire or have any right under or by virtue of this Agreement. The term "successors and assigns" shall not include any purchaser of Shares from any Underwriter merely because of such purchase. The invalidity or unenforceability of any Section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other Section, paragraph or provision hereof. If any Section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

All notices and communications hereunder shall be in writing and mailed or delivered or by telephone or e-mail if subsequently confirmed in writing, (a) if to the Representative, c/o Oppenheimer & Co. Inc., 85 Broad Street, New York, New York 10004 Attention: Equity Capital Markets, with a copy to Oppenheimer & Co. Inc., 85 Broad Street, New York, New York 10004 Attention: General Counsel, and to Ellenoff Grossman & Schole LLP, Attention: Robert Charron, 1345 Avenue of the Americas, New York, New York 10105, and (b) if to the Company, to its agent for service as such agent's address appears on the cover page of the Registration Statement with a copy to Wilson Sonsini Goodrich & Rosati, a Professional Corporation, Attention: Elton Satusky, 650 Page Mill Road, Palo Alto, California 94304.

This Agreement and any claim, controversy or dispute arising under or related to this Agreement shall be governed by and construed in accordance with the laws of the State of New York. This Agreement contains the entire agreement of the parties, and replaces and supersedes all prior discussions, proposals, negotiations, and agreements in principle, oral or written, between or among the parties, with respect to the subject matter hereof. This Agreement may only be amended by a written instrument signed by the parties hereto.

This Agreement may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

Please confirm that the foregoing correctly sets forth the agreement among us.

Very truly yours,

SOLENO THERAPEUTICS, INC.

By: /s/ Anish Bhatnagar
Name: Anish Bhatnagar
Title: Chief Executive Officer

Confirmed:

OPPENHEIMER & CO. INC.

Acting severally on behalf of itself
and as representative of the several
Underwriters named in Schedule I annexed hereto.

By: **OPPENHEIMER & CO. INC.**

By /s/ Peter Bennett
Name: Peter Bennett
Title: Managing Director

SCHEDULE I

<u>Underwriter</u>	<u>Number of Firm Shares to be Purchased from the Company</u>
Oppenheimer & Co. Inc.	9,212,501
Roth Capital Partners, LLC	977,083
Laidlaw & Company (UK) Ltd.	977,083
Total	11,166,667

Schedule I

SCHEDULE II

Lock-up Signatories

Abingworth Bioventures VII LP
Anish Bhatnagar, M.D.
Stuart Collinson, Ph.D.
Forward Ventures V, L.P.
William G. Harris
Ernest Mario, Ph.D.
Gwen Melincoff
Andrew Sinclair, Ph.D.
Birgitte Volck, M.D., Ph.D.
Jonathan Wolter
Kristen Yen, MS

Schedule II

SCHEDULE III

Issuer Free Writing Prospectuses

None.

Schedule III

October 25, 2019

Soleno Therapeutics, Inc.
203 Redwood Shores Pkwy, Suite 500
Redwood City, California, 94065

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Soleno Therapeutics, Inc., a Delaware corporation (the "Company"), in connection with the registration of the offer and sale of up to 12,841,667 shares (the "Shares") of the Company's common stock, \$0.001 par value per share, pursuant to the Company's shelf Registration Statement on Form S-3 (File No. 333-232068) filed on June 11, 2019 and declared effective by the Securities and Exchange Commission (the "Commission") on July 23, 2019 (the "Registration Statement").

The offering and sale of the Shares are being made pursuant to the underwriting agreement (the "Underwriting Agreement"), dated as of October 23, 2019, by and between the Company and Oppenheimer & Co. Inc., as representative of the several Underwriters named on Schedule A thereto.

We have examined copies of the Underwriting Agreement, the Registration Statement, the base prospectus that forms a part thereof and the prospectus supplement thereto related to the offering of the Shares, which prospectus supplement is dated as of the date hereof and will be filed by the Company in accordance with Rule 424(b) promulgated under the Securities Act of 1933, as amended. We have also examined instruments, documents and records which we deemed relevant and necessary for the basis of our opinion hereinafter expressed.

In such examination, we have assumed (i) the authenticity of original documents and the genuineness of all signatures, (ii) the conformity to the originals of all documents submitted to us as copies, and (iii) the truth, accuracy, and completeness of the information, representations and warranties contained in the records, documents, instruments and certificates we have reviewed.

Based on and subject to the foregoing, we are of the opinion that the Shares have been duly authorized by the Company and, when issued and delivered by the Company against payment therefor in accordance with the terms of the Underwriting Agreement, will be validly issued, fully paid and nonassessable.

We express no opinion as to the laws of any other jurisdiction other than the federal laws of the United States of America and the General Corporation Law of the State of Delaware.

We hereby consent to the use of this opinion as an exhibit to the Company's Current Report on Form 8-K filed on or about October 25, 2019, for incorporation by reference into the Registration Statement.

Very truly yours,

/s/ Wilson Sonsini Goodrich & Rosati P.C.

WILSON SONSINI GOODRICH & ROSATI
Professional Corporation

Soleno Therapeutics Announces Pricing of \$13.4 Million Public Offering of Common Stock

REDWOOD CITY, California – October 23, 2019 – Soleno Therapeutics, Inc. (SLNO), (“Soleno” or the “Company”), a clinical-stage biopharmaceutical company developing novel therapeutics for the treatment of rare diseases, today announced the pricing of an underwritten public offering of 11,166,667 shares of its common stock at a public offering price of \$1.20 per share. The gross proceeds of the offering are expected to be approximately \$13.4 million, before deducting the underwriting discount and other estimated offering expenses.

Oppenheimer & Co. Inc. is acting as the sole book-running manager for the offering. Roth Capital Partners and Laidlaw & Company (UK) Ltd. are acting as co-managers for the offering.

The closing of the offering is expected to occur on or about October 25, 2019, subject to the satisfaction of customary closing conditions.

The Company has also granted the underwriters a 30-day option to purchase up to 1,675,000 additional shares of common stock, at the public offering price, less underwriting discounts and commissions. Soleno currently intends to use the net proceeds from the offering primarily for working capital and general corporate purposes, including, without limitation, development of our product candidates, and general and administrative expenses.

The offering is being conducted pursuant to the Company’s shelf registration statement on Form S-3 (File No. 333-232068) previously filed with and subsequently declared effective by the Securities and Exchange Commission (the “SEC”) on July 23, 2019 and a preliminary prospectus supplement filed with the SEC on October 22, 2019. A final prospectus supplement and an accompanying prospectus relating to the offering will be filed with the SEC and will be available on the SEC’s website located at <http://www.sec.gov>. When available, electronic copies of the final prospectus supplement and the accompanying prospectus relating to the offering may be obtained from: Oppenheimer & Co. Inc., Attention: Syndicate Prospectus Department, 85 Broad St., 26th Floor, New York, NY 10004, by telephone at (212) 667-8055 or by email at EquityProspectus@opco.com.

Before investing in the offering, you should read the prospectus supplement and the accompanying prospectus, and the other documents that Soleno has filed with the SEC that are incorporated by reference in the prospectus supplement and the accompanying prospectus, in their entirety, which provide more information about Soleno and the offering.

This press release shall not constitute an offer to sell or the solicitation of an offer to buy any securities described herein, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction. The offering will be made only by means of a prospectus supplement and the accompanying prospectus that forms a part of the registration statement.

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, Diazoxide Choline Controlled Release (DCCR) tablets, a once-daily oral tablet for the treatment of Prader-Willi Syndrome (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 within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended. All statements other than statements of historical facts contained in this press release are forward-looking statements, including statements regarding the Company's expectations on the completion, timing and size of the proposed public offering and the anticipated use of proceeds therefrom. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar expressions. These forward-looking statements speak only as of the date of this press release and are subject to a number of risks, uncertainties and assumptions, including the risks and uncertainties associated with market conditions and the satisfaction of customary closing conditions related to the proposed public offering, as well as risks and uncertainties inherent in Soleno's business, including those described in the company's prior press releases and in the periodic reports it files with the SEC. The events and circumstances reflected in the company's forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, the company does not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

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