
**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): April 13, 2017

SORRENTO THERAPEUTICS, INC.
(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-36150
(Commission
File Number)

33-0344842
(IRS Employer
Identification No.)

9380 Judicial Drive
San Diego, CA 92121
(Address of Principal Executive Offices) (Zip Code)

Registrant's telephone number, including area code: (858) 210-3700

N/A
(Former Name, or Former Address, if Changed Since Last Report)

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

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 1.01. Entry into a Material Definitive Agreement.

On April 13, 2017, Sorrento Therapeutics, Inc. (the “Company”) entered into an underwriting agreement (the “Underwriting Agreement”) with Cantor Fitzgerald & Co. (the “Representative”), as representative of the several underwriters named therein (the “Underwriters”), relating to an underwritten public offering (the “Offering”) of 23,625,084 shares of the Company’s common stock (“Common Stock”). The public offering price is \$2.00 per share of Common Stock and the Underwriters have agreed to purchase the Common Stock pursuant to the Underwriting Agreement at a price of \$1.8571 per share. Under the terms of the Underwriting Agreement, the Company also granted to the Underwriters an option, exercisable in whole or in part at any time for a period of 30 days from the date of the closing of the Offering, to purchase up to an additional 3,543,763 shares of Common Stock at the public offering price to cover over-allotments, if any.

The Offering is being made pursuant to the Company’s registration statement on Form S-3 (File No. 333-199849), which was declared effective by the Securities and Exchange Commission (the “SEC”) on December 3, 2014, a base prospectus dated December 3, 2014 and a prospectus supplement dated April 12, 2017.

Net proceeds from the Offering are expected to be approximately \$43.5 million (excluding any sale of shares of Common Stock pursuant to the over-allotment option granted to the Underwriters), after deducting underwriting discounts and commissions and estimated Offering expenses payable by the Company. The purchase and sale of the Common Stock, and the closing of the Offering, is expected to take place on or about April 19, 2017, subject to the satisfaction of customary closing conditions.

The Underwriting Agreement contains customary representations, warranties and covenants made by the Company. It also provides for customary indemnification by each of the Company and the Underwriters, severally and not jointly, for losses or damages arising out of or in connection with the Offering, including for liabilities under the Securities Act of 1933, as amended, other obligations of the parties and termination provisions. In addition, pursuant to the terms of the Underwriting Agreement, each of the Company’s directors and executive officers have entered into “lock-up” agreements with the Underwriters that generally prohibit, without the prior written consent of the Representative, the sale, transfer or other disposition of securities of the Company prior to July 12, 2017.

The foregoing description of the Underwriting Agreement does not purport to be complete and is qualified in its entirety by reference to the copy of the Underwriting Agreement, which is filed as Exhibit 1.1 to this Current Report on Form 8-K. A copy of the opinion of Paul Hastings LLP, counsel to the Company, relating to the validity of the shares of Common Stock to be issued in the Offering is filed with this Current Report on Form 8-K as Exhibit 5.1.

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 the Underwriting Agreement, and may be subject to limitations agreed upon by the contracting parties. Accordingly, the Underwriting Agreement is incorporated herein by reference only to provide investors with information regarding the terms of the Underwriting Agreement, and not to provide investors with any other factual information regarding the Company or its business, and should be read in conjunction with the disclosures in the Company’s periodic reports and other filings with the SEC.

Forward-Looking Statements

This Current Report on Form 8-K contains forward-looking statements that involve risks and uncertainties, such as statements related to the anticipated closing of the Offering and the amount of proceeds expected from the Offering. The risks and uncertainties involved include the Company’s ability to satisfy certain conditions to closing on a timely basis or at all, market conditions, and other risks detailed from time to time in the Company’s periodic reports and other filings with the SEC. You are cautioned not to place undue reliance on forward-looking statements, which are based on the Company’s current expectations and assumptions and speak only as of the date of this Current Report on Form 8-K. The Company does not intend to revise or update any forward-looking statement in this Current Report on Form 8-K as a result of new information, future events or otherwise, except as required by law.

Item 8.01. Other Events.

On April 13, 2017, the Company issued a press release announcing the pricing of the Offering. A copy of the press release is attached as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit Number	Description
1.1	Underwriting Agreement, dated as of April 13, 2017, by and between Sorrento Therapeutics, Inc. and Cantor Fitzgerald & Co., as representative of the underwriters named therein.
5.1	Opinion of Paul Hastings LLP.
23.1	Consent of Paul Hastings LLP (included in Exhibit 5.1).
99.1	Press Release, dated April 13, 2017.

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.

SORRENTO THERAPEUTICS, INC.

Date: April 13, 2017

By: /s/ Henry Ji, Ph.D.
Name: Henry Ji, Ph.D.
Title: President and Chief Executive Officer

Exhibit Index

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23,625,084 Shares

SORRENTO THERAPEUTICS, INC.

UNDERWRITING AGREEMENT (this "Agreement")

April 13, 2017

Cantor Fitzgerald & Co.
499 Park Avenue
New York, NY 10022

Ladies and Gentlemen:

Introductory. Sorrento Therapeutics, Inc., a Delaware corporation (the "**Company**"), proposes to issue and sell to the several underwriters named in Schedule A (the "**Underwriters**") an aggregate of 23,625,084 shares of its common stock, par value \$0.0001 per share (the "**Shares**"). The 23,625,084 Shares to be sold by the Company are called the "**Firm Shares**." In addition, the Company has granted to the Underwriters an option to purchase up to an additional 3,543,763 Shares as provided in Section 2. The additional 3,543,763 Shares to be sold by the Company pursuant to such option are called the "**Optional Shares**." The Firm Shares and, if and to the extent such option is exercised, the Optional Shares, are collectively called the "**Offered Shares**." Cantor Fitzgerald & Co. ("**CF&Co.**") has agreed to act as Representative of the several Underwriters (in such capacity, the "**Representative**") in connection with the offering and sale of the Offered Shares. To the extent there are no additional underwriters listed on Schedule A, the term "Representative" as used herein shall mean CF&Co., as Underwriter, and the term "Underwriters" shall mean either the singular or the plural, as the context requires.

The Company has prepared and filed with the Securities and Exchange Commission (the "**Commission**") a registration statement on Form S-3, File No. 333-199849, including a base prospectus (the "**Base Prospectus**") to be used in connection with the public offering and sale of the Offered Shares. Such registration statement, as amended, including the financial statements, exhibits and schedules thereto, in the form in which it became effective under the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder (collectively, the "**Securities Act**"), including all documents incorporated or deemed to be incorporated by reference therein and any information deemed to be a part thereof at the time of effectiveness pursuant to Rule 430A or Rule 430B under the Securities Act, is called the "**Registration Statement**." Any registration statement filed by the Company pursuant to Rule 462(b) under the Securities Act in connection with the offer and sale of the Offered Shares is called the "**Rule 462(b) Registration Statement**," and from and after the date and time of filing of any such Rule 462(b) Registration Statement the term "Registration Statement" shall include the Rule 462(b) Registration Statement. The preliminary prospectus supplement dated April 12, 2017 describing the Offered Shares and the offering thereof (the "**Preliminary Prospectus Supplement**"), together with the Base Prospectus, is called the "**Preliminary Prospectus**," and the Preliminary Prospectus and any other prospectus supplement to the Base Prospectus in preliminary form that describes the Offered Shares and the offering thereof and is used prior to the filing of the Prospectus (as defined below), together with the Base Prospectus, is called a "**preliminary prospectus**." As used herein, the term "**Prospectus**" shall mean the final prospectus supplement to the Base Prospectus that describes the Offered Shares and the offering thereof (the "**Final Prospectus Supplement**"), together with the Base Prospectus, in the form first used by the Underwriters to confirm sales of the Offered Shares or in the form first made available to the Underwriters by the Company to meet requests of purchasers pursuant to Rule 173 under the Securities Act. References herein to the Preliminary Prospectus, any preliminary prospectus and the Prospectus shall refer to both the prospectus supplement and the Base Prospectus components of such prospectus. As used herein, "**Applicable Time**" is 9:00 a.m. (New York City time) on April 13, 2017. As used herein, "**free writing prospectus**" has the meaning set forth in Rule 405 under the Securities Act, and "**Time of Sale Prospectus**" means the Preliminary Prospectus together with the free writing prospectuses, if any, identified in Schedule C hereto and the pricing information set forth on Schedule D hereto. As used herein, "**Road Show**" means a "road show" (as defined in Rule 433 under the Securities Act) relating to the offering of the Offered Shares contemplated hereby that is a "written communication" (as defined in Rule 405 under the Securities Act).

All references in this Agreement to financial statements and schedules and other information which are “contained,” “included” or “stated” in, or “part of” the Registration Statement, the Rule 462(b) Registration Statement, the Preliminary Prospectus, any preliminary prospectus, the Base Prospectus, the Time of Sale Prospectus or the Prospectus, and all other references of like import, shall be deemed to mean and include all such financial statements and schedules and other information which is or is deemed to be incorporated by reference in the Registration Statement, the Rule 462(b) Registration Statement, the Preliminary Prospectus, any preliminary prospectus, the Base Prospectus, the Time of Sale Prospectus or the Prospectus, as the case may be. All references in this Agreement to amendments or supplements to the Registration Statement, the Preliminary Prospectus, any preliminary prospectus, the Base Prospectus, the Time of Sale Prospectus or the Prospectus shall be deemed to mean and include the filing of any document under the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder (collectively, the “**Exchange Act**”) that is or is deemed to be incorporated by reference in the Registration Statement, the Preliminary Prospectus, any preliminary prospectus, the Base Prospectus, or the Prospectus, as the case may be. All references in this Agreement to (i) the Registration Statement, the Preliminary Prospectus, any preliminary prospectus, the Base Prospectus or the Prospectus, any amendments or supplements to any of the foregoing, or any free writing prospectus, shall include any copy thereof filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System (“**EDGAR**”); and (ii) the Prospectus shall be deemed to include any “electronic Prospectus” provided for use in connection with the offering of the Offered Shares as contemplated by Section 3(o). All references herein to “subsidiary” or “subsidiaries” refer only to the Company’s consolidated subsidiaries.

The Company hereby confirms its agreements with the Underwriters as follows:

Section 1. Representations and Warranties.

The Company hereby represents, warrants and covenants to each Underwriter, as of the date of this Agreement, as of the First Closing Date (as hereinafter defined) and as of each Option Closing Date (as hereinafter defined), if any, as follows:

(a) Compliance with Registration Requirements. The Registration Statement has become effective under the Securities Act. The Company has complied to the Commission’s satisfaction with all requests of the Commission for additional or supplemental information, if any. No stop order suspending the effectiveness of the Registration Statement is in effect and no proceedings for such purpose have been instituted or are pending or, to the knowledge of the Company, are contemplated or threatened by the Commission. At the time the Company’s Annual Report on Form 10-K (as amended by Amendment No.1 on Form 10-K/A filed on March 27, 2017) for the year ended December 31, 2016 (the “**Annual Report**”) was filed with the Commission, or, if later, at the time the Registration Statement was originally filed with the Commission, the Company met the then-applicable requirements for use of Form S-3 under the Securities Act. The documents incorporated or deemed to be incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus, at the time they were or hereafter are filed with the Commission, or became effective under the Exchange Act, as the case may be, complied and will comply in all material respects with the requirements of the Exchange Act.

(b) **Disclosure.** Each preliminary prospectus and the Prospectus when filed complied in all material respects with the Securities Act and, if filed by electronic transmission pursuant to EDGAR, was identical (except as may be permitted by Regulation S-T under the Securities Act) to the copy thereof delivered to the Underwriters for use in connection with the offer and sale of the Offered Shares. Each of the Registration Statement and any post-effective amendment thereto, at the time it became or becomes effective, complied and will comply in all material respects with the Securities Act and did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. As of the Applicable Time, the Time of Sale Prospectus (including any preliminary prospectus wrapper) did not, and at the First Closing Date (as defined in Section 2) and at each applicable Option Closing Date (as defined in Section 2), will not, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Prospectus (including any Prospectus wrapper), as of its date, did not, and at the First Closing Date and at each applicable Option Closing Date, will not, contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The representations and warranties set forth in the three immediately preceding sentences do not apply to statements in or omissions from the Registration Statement or any post-effective amendment thereto, or the Prospectus or the Time of Sale Prospectus, or any amendments or supplements thereto, made in reliance upon and in conformity with written information relating to any Underwriter furnished to the Company in writing by the Representative expressly for use therein, it being understood and agreed that the only such information consists of the information described in Section 9(b). There are no contracts or other documents required to be described in the Time of Sale Prospectus or the Prospectus or to be filed as an exhibit to the Registration Statement or the documents incorporated by reference therein which have not been described or filed as required.

(c) **Free Writing Prospectuses; Road Show.** As of the determination date referenced in Rule 164(h) under the Securities Act, the Company was not, is not or will not be (as applicable) an “ineligible issuer” in connection with the offering of the Offered Shares pursuant to Rules 164, 405 and 433 under the Securities Act. Each free writing prospectus that the Company is required to file pursuant to Rule 433(d) under the Securities Act has been, or will be, filed with the Commission in accordance with the requirements of the Securities Act. Each free writing prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act or that was prepared by or on behalf of or used or referred to by the Company complies or will comply in all material respects with the requirements of Rule 433 under the Securities Act, including timely filing with the Commission or retention where required and legending, and each such free writing prospectus, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Offered Shares did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, the Prospectus or any preliminary prospectus and not superseded or modified. Except for the free writing prospectuses, if any, identified in Schedule C, and electronic road shows, if any, furnished to the Representative before first use, the Company has not prepared, used or referred to, and will not, without the prior written consent of the Representative, prepare, use or refer to, any free writing prospectus. Each Road Show, when considered together with the Time of Sale Prospectus, did not, as of the Applicable Time, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(d) **Distribution of Offering Material By the Company.** Prior to the later of (i) the expiration or termination of the option granted to the several Underwriters in Section 2 and (ii) the completion of the Underwriters' distribution of the Offered Shares, the Company has not distributed and will not distribute any offering material in connection with the offering and sale of the Offered Shares other than the Registration Statement, the Time of Sale Prospectus, the Prospectus or any free writing prospectus reviewed and consented to by the Representative, and the free writing prospectuses, if any, identified on Schedule C hereto.

(e) **The Underwriting Agreement.** This Agreement has been duly authorized, executed and delivered by the Company.

(f) **Authorization of the Offered Shares.** The Offered Shares have been duly authorized for issuance and sale pursuant to this Agreement and, when issued and delivered by the Company against payment therefor pursuant to this Agreement, will be validly issued, fully paid and nonassessable, and the issuance and sale of the Offered Shares is not subject to any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase the Offered Shares that have not been duly waived or satisfied.

(g) **No Applicable Registration or Other Similar Rights.** There are no persons with registration or other similar rights to have any equity or debt securities registered for sale under the Registration Statement or included in the offering contemplated by this Agreement, except for such rights as have been duly waived.

(h) **No Material Adverse Effect in Business.** Except as otherwise disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, subsequent to the respective dates as of which information is given in the Registration Statement, the Time of Sale Prospectus and the Prospectus: (i) there has been no material adverse effect in the financial position or results of operations of the Company, nor any change or development that, singularly or in the aggregate, would involve a material adverse effect or a prospective material adverse effect, in or affecting the condition (financial or otherwise), results of operations, business, assets or prospects of the Company and its subsidiaries considered as one enterprise (a "**Material Adverse Effect**"); (ii) the Company and its subsidiaries, considered as one enterprise, have not incurred any material liability or obligation, indirect, direct or contingent, including without limitation any losses or interference with its business from fire, explosion, flood, earthquakes, accident or other calamity, whether or not covered by insurance, or from any strike, labor dispute or court or governmental action, order or decree, that are material, individually or in the aggregate, to the Company, or has entered into any material transactions, in each case, not in the ordinary course of business; and (iii) no officer or director of the Company has resigned from any position with the Company.

(i) **Independent Accountants.** The accountants who certified the financial statements and supporting schedules included or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus are independent registered public accounting firms as required by the Securities Act, the Exchange Act and the Public Company Accounting Oversight Board.

(j) **Financial Statements.** The financial statements filed with the Commission as a part of the Registration Statement, the Time of Sale Prospectus and the Prospectus present fairly, in all material respects, the financial position of the Company and its subsidiaries at the dates indicated and the statement of operations, stockholders' equity and cash flows of the Company and its subsidiaries for the periods specified; said financial statements have been prepared in conformity with U.S. generally accepted accounting principles ("**GAAP**") applied on a consistent basis throughout the periods involved, except as may be expressly stated in the related notes thereto. The supporting schedules, if any, present fairly, in all material respects, in accordance with GAAP the information required to be stated therein. The financial data set forth in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus under the caption "Capitalization" fairly present, in all material respects, the information set forth therein on a basis consistent with that of the audited financial statements contained in the Registration Statement, the Time of Sale Prospectus and the Prospectus. All disclosures contained in the Registration Statement, any preliminary prospectus or the Prospectus and any free writing prospectus, that constitute non-GAAP financial measures (as defined by the rules and regulations under the Securities Act and the Exchange Act) comply with Regulation G under the Exchange Act and Item 10 of Regulation S-K under the Securities Act, as applicable. The interactive data in the eXtensible Business Reporting Language incorporated by reference in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus, as applicable, fairly presents the information called for in all material respects and have been prepared in accordance with the Commission's rules and guidelines applicable thereto.

(k) **Off-Balance Sheet Arrangements.** There are no transactions, joint ventures or other arrangements between and/or among the Company, and/or, to the knowledge of the Company, any of its Affiliates and any unconsolidated entity, including, but not limited to, any structured finance, special purpose or limited purpose entity (each, an “**Off-Balance Sheet Transaction**”) that could reasonably be expected to materially affect the Company’s liquidity or the availability of or requirements for its capital resources, including those Off-Balance Sheet Transactions described in the Commission’s Statement about Management’s Discussion and Analysis of Financial Condition and Results of Operations (Release Nos. 33-8056; 34-45321; FR-61), required to be described in the Prospectus which have not been so described therein or incorporated by reference therein as required.

(l) **Accounting Controls and Disclosure Controls.** The Company and each of its subsidiaries maintain effective internal control over financial reporting (as defined under Rule 13a-15 and 15d-15 under the Exchange Act) and a system of internal accounting controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management’s general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management’s general or specific authorization; 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. Except as described in the Registration Statement, the Time of Sale Prospectus or the Prospectus, since the end of the Company’s most recent audited fiscal year there has been (1) no material weakness in the Company’s internal control over financial reporting required to be disclosed under the Exchange Act (whether or not remediated) and (2) no change in the Company’s internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting. The Company and each of its subsidiaries maintain an effective system of disclosure controls and procedures (as defined in Rule 13a-15 and Rule 15d-15 under the Exchange Act) that are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission’s rules and forms, and is accumulated and communicated to the Company’s management, including its principal executive officer or officers and principal financial officer or officers, as appropriate, to allow timely decisions regarding any disclosure required under the Exchange Act.

(m) **Good Standing of the Company.** The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware and has corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus and to enter into and perform its obligations under this Agreement; and the Company is duly qualified as a foreign corporation to transact business and is in good standing in each other jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure so to qualify or to be in good standing would not result in a Material Adverse Effect.

(n) **Good Standing of Subsidiaries.** Each subsidiary of the Company listed on Exhibit 21.1 to the Company's Form 10-K filed for the fiscal year ended December 31, 2016 (the "**Form 10-K**") has been duly organized or formed and is validly existing, and with respect to subsidiaries organized or formed in Delaware, in good standing under the laws of the jurisdiction of its incorporation or organization, has corporate or similar power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus and is duly qualified to transact business and is in good standing in each jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure to so qualify or to be in good standing would not result in a Material Adverse Effect. All of the issued and outstanding capital stock or other equity or ownership interest of each subsidiary listed on Exhibit A hereto has been duly authorized and validly issued, is fully paid and non-assessable and, except for directors' qualifying shares or as otherwise disclosed in the Registration Statement, the Time of Sale Prospectus or the Prospectus or indicated on Exhibit A or pursuant to and in accordance with the Loan and Security Agreement, dated as of November 23, 2016, as amended, by and among the Company, certain of its subsidiaries, the several banks and financial institutions, as lenders thereto and Hercules Capital, Inc., as administrative agent and collateral agent (as amended from time to time, the "**Hercules Agreement**"), is owned by the Company, directly or through subsidiaries in each case free and clear of any security interest, mortgage, pledge, lien, encumbrance, claim or equity except as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus. None of the outstanding shares of capital stock or other equity or ownership interest of any subsidiary listed on Exhibit A hereto was issued in violation of the preemptive or similar rights of any securityholder or other economic owner of such subsidiary. The Company has no material subsidiaries other than the subsidiaries listed on Exhibit 21.1 to the Form 10-K, and the only subsidiaries that constitute a "significant subsidiary," as defined in Rule 1-02 of Regulation S-X, are the subsidiaries listed on Exhibit A hereto.

(o) **Capitalization.** The authorized, issued and outstanding shares of capital stock of the Company are as set forth in the Registration Statement, the Time of Sale Prospectus and the Prospectus (except for subsequent issuances, if any, pursuant to reservations, agreements or employee benefit plans referred to in the Registration Statement, the Time of Sale Prospectus or the Prospectus or prior or existing employee benefit plans, or pursuant to the exercise of warrants, convertible securities, options or preferred stock purchase rights referred to in the Registration Statement, the Time of Sale Prospectus or the Prospectus or as otherwise disclosed in the Registration Statement, the Time of Sale Prospectus or the Prospectus). The Shares (including the Offered Shares) conform in all material respects to the description thereof contained in the Time of Sale Prospectus. The outstanding shares of capital stock of the Company have been duly authorized and validly issued and are fully paid and non-assessable. None of the outstanding shares of capital stock of the Company was issued in violation of the preemptive or other similar rights of any securityholder of the Company. Except as set forth in, or contemplated by, the Registration Statement, the Time of Sale Prospectus and the Prospectus, there are no stock options, warrants, or other rights to purchase or otherwise acquire any authorized, but unissued shares of Common Stock of the Company or any security convertible or exercisable into shares of Common Stock of the Company, or any contracts or commitments to issue or sell shares of Common Stock or any such options, warrants, rights or convertible securities. The descriptions of the Company's stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, set forth in the Registration Statement, the Time of Sale Prospectus and the Prospectus, accurately and fairly present, in all material respects, the information that would be required to be shown or incorporated by reference therein with respect to such plans, arrangements, options and rights.

(p) **Stock Exchange Listing.** The Shares are registered pursuant to Section 12(b) of the Exchange Act and are listed on The NASDAQ Capital Market (the “NASDAQ”), and the Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Shares under the Exchange Act or delisting the Shares from the NASDAQ, nor has the Company received any notification that the Commission or the NASDAQ is contemplating terminating such registration or listing. To the Company’s knowledge, it is in compliance with all applicable listing requirements of NASDAQ.

(q) **Absence of Violations, Defaults and Conflicts.** Neither the Company nor any of its subsidiaries is (i) in violation of its charter, by-laws or similar organizational document, (ii) in default in the performance or observance of any obligation, agreement, covenant or condition contained in any contract, indenture, mortgage, deed of trust, loan or credit agreement, note, lease or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which it or any of them may be bound or to which any of the properties or assets of the Company or any subsidiary is subject (collectively, “**Agreements and Instruments**”), except for such defaults that would not, singly or in the aggregate, result in a Material Adverse Effect, or (iii) in violation of any law, statute, rule, regulation, judgment, order, writ or decree of any arbitrator, court, governmental body, regulatory body, administrative agency or other authority, body or agency having jurisdiction over the Company or any of its subsidiaries or any of their respective properties, assets or operations (each, a “**Governmental Entity**”), except for such violations that would not, singly or in the aggregate, result in a Material Adverse Effect. The Company’s execution, delivery and performance of this Agreement, consummation of the transactions contemplated hereby and by the Registration Statement, the Time of Sale Prospectus and the Prospectus and the issuance and sale of the Offered Shares (including the use of proceeds from the sale of the Offered Shares as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus under the caption “Use of Proceeds”) and compliance by the Company with its obligations hereunder and thereunder, have been duly authorized by all necessary corporate action and do not and will not, whether with or without the giving of notice or passage of time or both (except, with respect to subparts (A) and (C) below, for such conflicts, breaches, defaults or Repayment Events (as defined below) or liens, charges or encumbrances that would not, singly or in the aggregate, result in a Material Adverse Effect) (A) conflict with or constitute a breach of, or default or Repayment Event (as defined below) under, or result in the creation or imposition of any lien, charge or encumbrance upon any properties or assets of the Company or any subsidiary pursuant to, the Agreements and Instruments, (B) result in any violation of the provisions of the charter, by-laws or similar organizational document of the Company or any of its subsidiaries, or (C) result in any violation of any applicable law, statute, rule, regulation, judgment, order, writ or decree of any Governmental Entity. As used herein, a “**Repayment Event**” means any event or condition which gives the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder’s behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or any of its subsidiaries.

(r) **Compliance with Laws.** Except as described in the Registration Statement, the Time of Sale Prospectus or the Prospectus (including the documents incorporated therein), the Company has all requisite corporate power and authority, and has all necessary authorizations, approvals, orders, licenses, certificates, consents and permits (collectively, “**Government Licenses**”) of and from all Governmental Entities that it needs as of the date hereof to conduct its business purpose as described in the Registration Statement, the Time of Sale Prospectus or the Prospectus, except where the failure to have any such authorization, approval, order, license, certificate or permit would not have or reasonably be expected to result in a Material Adverse Effect. All such Government Licenses are valid and in full force and effect except where failure to be valid and in full force and effect would not, individually or in the aggregate, result in a Material Adverse Effect. Neither the Company nor any of its subsidiaries has received notice of any revocation or modification of any Government Licenses which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would result in a Material Adverse Effect or has reason to believe that any Government Licenses, which if not renewed would result in a Material Adverse Effect, will not be renewed in the ordinary course.

(s) **Absence of Proceedings.** Except as disclosed in the Registration Statement, the Time of Sale Prospectus or the Prospectus, there is no action, suit, proceeding, inquiry or investigation before or brought by any Governmental Entity now pending or, to the knowledge of the Company, threatened, against or affecting the Company or any of its subsidiaries, which would result in a Material Adverse Effect, or which would reasonably be expected to materially and adversely affect their respective properties or assets or the consummation of the transactions contemplated by this Agreement or the performance by the Company of its obligations hereunder; and the aggregate of all pending legal or governmental proceedings to which the Company or any such subsidiary is a party or of which any of their respective properties or assets is the subject which are not described in in the Registration Statement, the Time of Sale Prospectus or the Prospectus, including ordinary routine litigation incidental to the business, would not result in a Material Adverse Effect.

(t) **Intellectual Property Rights.** To the knowledge of the Company and each of its subsidiaries, except as disclosed in the Registration Statement, the Time of Sale Prospectus or the Prospectus, the Company and each of its subsidiaries owns or possesses or has valid and enforceable rights to use all patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses, inventions, trade secrets, formulae, customer lists, domain names, technology, know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures) and other similar intellectual property rights (“**Intellectual Property Rights**”) necessary for the conduct of the business of the Company and its subsidiaries as currently carried on or as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus. Neither the Company nor its subsidiaries has knowledge of, or has received any notice alleging, any infringement, necessary license fee or conflict with the intellectual property rights of others. Except for that which would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Effect (A) to the knowledge of the Company or any of its subsidiaries, there is no infringement, misappropriation or violation by third parties of any of the Intellectual Property Rights; (B) to the knowledge of the Company or any of its subsidiaries, there is no pending or threatened action, suit, proceeding or claim by others challenging the rights of the Company or any of its subsidiaries in or to any such Intellectual Property Rights, and the Company and each of its subsidiaries is unaware of any facts that would form a reasonable basis for any such claim either individually or in the aggregate with any other claims in this Section 1(t); (C) to the knowledge of the Company or any of its subsidiaries, the Intellectual Property Rights owned or licensed by the Company or any of its subsidiaries have not been adjudged by a court of competent jurisdiction to be invalid or unenforceable, in whole or in part, and there is no pending or threatened action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property Rights, and the Company and each of its subsidiaries is unaware of any facts that would form a reasonable basis for any such claim, either individually or in the aggregate with any other claims in this Section 1(t); (D) to the knowledge of the Company or any of its subsidiaries, except as disclosed in the Registration Statement, the Time of Sale Prospectus or the Prospectus, there is no pending or threatened action, suit, proceeding or claim by others that the Company or any of its subsidiaries infringes, misappropriates or otherwise violates any intellectual property rights of others, the Company and each of its subsidiaries has not received any written notice of such claim and the Company and each of its subsidiaries is unaware of any other facts that would form a reasonable basis for any such claim, either individually or in the aggregate with any other claims in this Section 1(t); (E) to the knowledge of the Company or any of its subsidiaries, no employee or consultant of the Company or any of its subsidiaries is in or has ever been in violation in any material respect of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee’s or consultant’s employment with the Company or any of its subsidiaries, or actions undertaken by the employee while employed with or retained by the Company or any of its subsidiaries; and (F) to the knowledge of the Company and each of its subsidiaries, the Company and each of its subsidiaries has complied with the terms of each agreement pursuant to which Intellectual Property Rights have been licensed to the Company or one or more of its subsidiaries, and all such agreements are in full force and effect. Except as would not reasonably be expected individually or in the aggregate to have a Material Adverse Effect, the product candidates described in the Registration Statement, the Time of Sale Prospectus and the Prospectus, as under development by the Company or its subsidiaries fall within the scope of the claims of one or more patents, or are intended to fall within the scope of claims being prosecuted in a commercially reasonable manner in patent applications, owned by, or exclusively licensed to, the Company or the applicable subsidiary. To the knowledge of the Company or any of its subsidiaries, all material technical information developed by and belonging to the Company or any of its subsidiaries which has not been patented has been kept confidential. Neither the Company nor any of its subsidiaries is a party to or bound by any options, licenses or agreements with respect to the Intellectual Property Rights of any other person or entity that are required to be set forth in the Registration Statement, the Time of Sale Prospectus or the Prospectus, and are not described therein. The Registration Statement, the Time of Sale Prospectus or the Prospectus contain in all material respects the same description of the matters set forth in the preceding sentence. None of the technology employed by the Company or any of its subsidiaries has been obtained or is being used by the Company or any of its subsidiaries in violation of any contractual obligation binding on the Company or any of its subsidiaries or, to the knowledge of the Company or any of its subsidiaries, any of its officers, directors or employees, or is otherwise in violation of the rights of any persons.

(u) **Title to Properties.** The Company and its subsidiaries have good and marketable title to all material real property owned by them and good title to all other properties owned by them, which is, singly or in the aggregate, material to the business of the Company and its subsidiaries taken as a whole, in each case, free and clear of all mortgages, pledges, liens, security interests, claims, restrictions or encumbrances of any kind except such as (i) are described in the Registration Statement, the Time of Sale Prospectus or the Prospectus, (ii) pursuant to and in accordance with the Hercules Agreement or (iii) do not, singly or in the aggregate, materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company or any of its subsidiaries. The real property, improvements, equipment and personal property held under material lease by the Company or any of its subsidiaries are held under valid and enforceable leases, with such exceptions as are not material and do not materially interfere with the uses made or proposed to be made of such real property, improvements, equipment or personal property by the Company and its subsidiaries (considered as a single enterprise).

(v) **Payment of Taxes.** Except, in each case, as would not result in a Material Adverse Effect, all United States federal income tax returns of the Company and its subsidiaries required by law to be filed have been filed (or the Company or its subsidiaries has duly requested extensions to such filings), and all taxes shown by such returns or otherwise assessed, which are due and payable, have been paid, except for such taxes or assessments, if any, as are being contested in good faith or against which appeals have been or will be promptly taken and as to which adequate reserves have been established by the Company. The Company and its subsidiaries have filed all other tax returns, or permitted extensions, that are required to have been filed by them pursuant to applicable foreign, state, local or other law except insofar as the failure to file such returns (or extensions) would not result in a Material Adverse Effect, and has paid all taxes due pursuant to such returns or pursuant to any assessment received by the Company and its subsidiaries, except for such taxes or assessments, if any, as are being contested in good faith or against which appeals have been or will be promptly taken and as to which adequate reserves have been established by the Company. The charges, accruals and reserves on the books of the Company in respect of any income and corporation tax liability for any years not finally determined are adequate to meet any assessments or re-assessments for additional income tax for any years not finally determined, except to the extent of any inadequacy that would not result in a Material Adverse Effect.

(w) **Insurance.** The Company and its subsidiaries carry or are entitled to the benefits of insurance, with insurers who are, to the Company's knowledge, financially sound and reputable, in such amounts and covering such risks which the Company reasonably believes is adequate, and all such insurance is in full force and effect, except as would not result in a Material Adverse Effect. The Company believes that it or any of its subsidiaries will be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not result in a Material Adverse Effect. The Company has in effect insurance covering the Company, its directors and officers for liabilities or losses arising in connection with the offer and sale of the Offered Shares, including liabilities or losses arising under the Securities Act, the Exchange Act and applicable foreign securities laws. Neither the Company nor any of its subsidiaries has been denied any insurance coverage where it has sought or for which it has applied nor exhausted any limit under any of their insurance policies, in each case that would have a Material Adverse Effect.

(x) **Environmental Laws.** Except as described in the Registration Statement, the Time of Sale Prospectus or the Prospectus or as would not, singly or in the aggregate, result in a Material Adverse Effect, (i) neither the Company nor any of its subsidiaries is in violation of any federal, state, local or foreign statute, law, rule, regulation, ordinance, code, policy or rule of common law or any judicial or administrative interpretation thereof, including any judicial or administrative order, consent, decree or judgment, relating to pollution or protection of human health, the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata) or wildlife, including, without limitation, laws and regulations relating to the release or threatened release of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum or petroleum products, asbestos-containing materials or mold (collectively, "**Hazardous Materials**") or to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials (collectively, "**Environmental Laws**"), (ii) the Company and its subsidiaries have all permits, authorizations and approvals required under any applicable Environmental Laws and are each in compliance with their requirements, (iii) there are no pending or, to the Company's knowledge, threatened administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, notices of noncompliance or violation, investigation or proceedings relating to any Environmental Law against the Company or any of its subsidiaries, (iv) to the Company's knowledge, neither the Company nor any of its subsidiaries has agreed contractually to indemnify any past or current owner or operator of any property currently owned or operated by the Company or any of its subsidiaries, for liability related to the prior ownership or operation of such property, under any Environmental Law, including any obligation for cleanup or remedial action and (v) to the Company's knowledge, there are no events or circumstances that would reasonably be expected to form the basis of an order for cleanup or remediation, or an action, suit or proceeding by any private party or Governmental Entity, against or affecting the Company or any of its subsidiaries relating to Hazardous Materials or any Environmental Laws.

(y) **Employee Benefit Plans.** No nonexempt "prohibited transaction" (as defined in either Section 406 of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder ("**ERISA**"), or Section 4975 of the Internal Revenue Code of 1986, as amended from time to time (the "**Code**")), that would reasonably be expected to have a Material Adverse Effect, has occurred with respect to any employee benefit plan for which the Company or any of its subsidiaries would have any liability; each employee benefit plan for which the Company or any of its subsidiaries would have any liability is in compliance in all material respects with applicable law, including (without limitation) ERISA and the Code except as would not reasonably be expected to have a Material Adverse Effect; neither the Company nor any of its subsidiaries maintains or has within the preceding six years maintained any employee benefit plans as such term is defined in Section 3(3) of ERISA that are subject to Title IV of ERISA; and each plan for which the Company would have any liability that is intended to be qualified under Section 401(a) of the Code is the subject of a favorable determination, notification, advisory, or opinion letter from the Internal Revenue Service, is qualified, and nothing has occurred, whether by action or by failure to act, which would reasonably be expected to cause the loss of such qualification. The execution, delivery, and performance of this Agreement, consummation of the transactions contemplated hereby and by the Registration Statement, the Time of Sale Prospectus and the Prospectus and the consummation of the transactions contemplated by the Registration Statement, the Time of Sale Prospectus and the Prospectus, do not and will not involve any prohibited transaction within the meaning of Section 406 of ERISA or Section 4975 of the Code that would reasonably be expected to have a Material Adverse Effect.

(z) **Investment Company Act.** The Company is not required, and upon the issuance and sale of the Offered Shares as herein contemplated and the application of the net proceeds therefrom as described in the Registration Statement, the Time of Sale Prospectus or the Prospectus will not be required, to register as an “investment company” under the Investment Company Act of 1940, as amended.

(aa) Neither the Company nor any of its subsidiaries, nor any of their respective directors, officers, nor, to the Company’s knowledge, any of their respective affiliates or controlling persons, have taken, directly or indirectly, without giving effect to activities of the Underwriters, any action designed to or that would reasonably be expected to cause or result in stabilization or manipulation of the price of the Shares or of any “reference security” (as defined in Rule 100 of Regulation M under the Exchange Act (“**Regulation M**”)) with respect to the Shares, whether to facilitate the sale or resale of the Offered Shares or otherwise, and has taken no action which would directly or indirectly violate Regulation M.

(bb) **Related-Party Transactions.** There are no business relationships or related-party transactions involving the Company or any of its subsidiaries or any other person required to be described in the Registration Statement, the Time of Sale Prospectus or the Prospectus that have not been so described or incorporated by reference therein as required.

(cc) **FINRA Matters.** All of the information provided to the Underwriters or to counsel for the Underwriters by the Company, its counsel, its officers and directors and, to the Company’s knowledge, the holders of any securities (debt or equity) or options to acquire any securities of the Company in connection with the offering of the Offered Shares is true, complete, correct in all material respects and compliant with FINRA’s rules and any letters, filings or other supplemental information provided to FINRA pursuant to FINRA Rules or NASD Conduct Rules is true, complete and correct in all material respects.

(dd) **Parties to Lock-Up Agreements.** The Company has furnished to the Underwriters a letter agreement in the form attached hereto as Exhibit B (the “**Lock-up Agreement**”) from the directors and officers (as defined in Rule 16a-1(f) under the Exchange Act) of the Company.

(ee) **Statistical, Industry-Related and Market-Related Data.** Any statistical, industry-related and market-related data included in the Registration Statement, the Time of Sale Prospectus or the Prospectus are based on or derived from sources that the Company reasonably believes to be reliable and accurate in all material respects and, to the extent required, the Company has obtained the consent to the use of such data from such sources, or such data otherwise represent the Company’s reasonable estimates determined in good faith.

(ff) Foreign Corrupt Practices Act. Neither the Company nor any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person acting on behalf of the Company or its subsidiaries have, in the course of its actions for, or on behalf of, the Company or its subsidiaries (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; (ii) made any direct or indirect unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any domestic government official or “foreign official” (as defined in the U.S. Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (collectively, the “**FCPA**”) or from corporate funds; or (iii) violated or is in violation of any provision of the FCPA or any applicable non-U.S. anti-bribery statute or regulation; and the Company, its subsidiaries and, to the knowledge of the Company, the Company’s and such subsidiaries’ affiliates have conducted their respective businesses in compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

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

(hh) Sanctions.

(i) Neither the Company nor any of its subsidiaries nor, to the Company’s knowledge, any officer, director, employee, agent, affiliate or representative of the Company or its subsidiaries, is a government, individual, or entity (in this Section 1(hh), “**Person**”) that is, or is owned or controlled by a Person that is:

(1) the subject of any sanctions administered or enforced by the U.S. Department of Treasury’s Office of Foreign Assets Control, the United Nations Security Council, the European Union, Her Majesty’s Treasury, or other relevant sanctions authority (collectively, “**Sanctions**”), nor

(2) located, organized or resident in a country or territory that is the subject of Sanctions (including, without limitation, Burma/Myanmar, Cuba, Iran, North Korea, Sudan and Syria).

(ii) The Company represents and covenants that it 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:

(1) to fund or facilitate any activities or business of or with any Person or in any country or territory that, at the time of such funding or facilitation, is the subject of Sanctions; or

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

(iii) The Company represents and covenants that for the past 5 years, it has not knowingly engaged in, is not now knowingly engaging in, and will not engage in, any dealings or transactions with any Person, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions.

(ii) **Regulatory Filings.** The Company and each of its subsidiaries: (A) is and at all times has been in compliance with all statutes, rules, or regulations, including without limitation those of the applicable regulatory authorities (including, without limitation, the U.S Food and Drug Administration (“**FDA**”), European Medicines Agency (“**EMA**”), or any other foreign, federal, state, provincial or local Governmental Entity performing functions similar to those performed by the FDA), applicable to the ownership, licensing, testing (including without limitation clinical testing), research, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, sale, offer for sale, storage, import, export, or disposal, by, or on behalf of the Company or each of its subsidiaries, of any product candidate (“**Applicable Laws**”), except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; (B) except as disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, all regulatory filings, declarations, listings, registrations, reports or submissions were in compliance with applicable laws when filed and no deficiencies have been asserted by any applicable Governmental Entity with respect to any such filings, declarations, listings, registrations, reports or submissions, except for any deficiencies that, individually or in the aggregate, would not have a Material Adverse Effect; (C) has not received any FDA Form 483, notice of adverse finding, warning letter, untitled letter or other similar correspondence or notice from the FDA or any other foreign, federal, state, provincial or local Governmental Entity performing functions similar to those performed by the FDA alleging or asserting noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws (“**Authorizations**”), except as would not, individually or in the aggregate reasonably be expected to have a Material Adverse Effect; (D) possesses all material Authorizations and such Authorizations are valid and in full force and effect and the Company and each of its subsidiaries is not in material violation of any term of any such Authorizations, in each case except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; (E) has not received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any Governmental Entity or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations and has no knowledge that any such Governmental Entity or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding, except as would not, individually or in the aggregate reasonably be expected to have a Material Adverse Effect; (F) has not received written notice that any Governmental Entity has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations, except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect and has no knowledge that any such Governmental Entity is considering such action; (G) has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were, to the knowledge of the Company, complete and correct on the date filed (or were corrected or supplemented by a subsequent submission); and (H) has not, either voluntarily or involuntarily, initiated, conducted, or issued or caused to be initiated, conducted or issued, any recall, market withdrawal or replacement, safety alert, post-sale warning, “dear doctor” letter, or other notice or action relating to the alleged lack of safety or efficacy of any product or any alleged product defect or violation and, to the Company’s knowledge, no third party has initiated, conducted or intends to initiate any such notice or action.

(jj) Compliance with Health Care Laws. Each of the Company and its subsidiaries is, and at all times has been, in compliance in all material respects with all applicable Health Care Laws, and has not engaged in activities which are, as applicable, cause for false claims liability, civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, or any other state or federal health care program. For purposes of this Agreement, “**Health Care Laws**” means: (i) the Federal Food, Drug, and Cosmetic Act (21 U.S.C. §§ 301 et seq.) and the regulations promulgated thereunder; (ii) Regulation of Biological Products, 42 USC §262 et seq, as amended by the Biologics Price Competition and Innovation Act of 2009, and the regulations promulgated thereunder; (iii) all applicable federal, state, local and all applicable foreign health care related fraud and abuse laws, including, without limitation, the U.S. Anti-Kickback Statute (42 U.S.C. Section 1320a-7b(b)), the U.S. Physician Payment Sunshine Act (42 U.S.C. § 1320a-7h), the U.S. Civil False Claims Act (31 U.S.C. Section 3729 et seq.), the criminal False Claims Law (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, and the health care fraud criminal provisions under the U.S. Health Insurance Portability and Accountability Act of 1996 (“**HIPAA**”) (42 U.S.C. Section 1320d et seq.), the exclusion laws (42 U.S.C. § 1320a-7), the civil monetary penalties law (42 U.S.C. § 1320a-7a), HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. Section 17921 et seq.), and the regulations promulgated pursuant to such statutes; (iv) Medicare (Title XVIII of the Social Security Act); (v) Medicaid (Title XIX of the Social Security Act); (vi) the Controlled Substances Act (21 U.S.C. §§ 801 et seq.) and the regulations promulgated thereunder; and (vii) any and all other applicable health care laws and regulations of any jurisdiction. Neither the Company nor, to the knowledge of the Company, any subsidiary has received notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any court or arbitrator or Governmental Entity or third party alleging that the Company or any subsidiary is in material violation of any Health Care Laws, and, to the Company’s knowledge, no such claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action is threatened. Neither the Company nor, to the knowledge of the Company, any subsidiary is a party to or has any ongoing reporting obligations pursuant to any corporate integrity agreements, deferred prosecution agreements, monitoring agreements, consent decrees, settlement orders, plans of correction or similar agreements with or imposed by any Governmental Entity. Additionally, neither the Company, its subsidiaries nor any of its respective employees, officers or directors has been excluded, suspended or debarred from participation in any U.S. federal health care program or human clinical research or, to the knowledge of the Company, is subject to any inquiry, investigation, proceeding, or other similar action by any Governmental Entity that could reasonably be expected to result in debarment, suspension, or exclusion. Nothing in this provision shall serve to limit Section 1(ii).

(kk) Clinical Studies. All preclinical studies and clinical trials conducted by or, to the knowledge of the Company, on behalf of the Company that are material to the Company and its subsidiaries, taken as a whole, are or have been adequately described in the Registration Statement, the Time of Sale Prospectus and the Prospectus in all material respects. The clinical trials and preclinical studies conducted by or, to the knowledge of the Company, on behalf of the Company and its subsidiaries that are described in the Registration Statement, the Time of Sale Prospectus and the Prospectus or the results of which are referred to in the Registration Statement, the Time of Sale Prospectus and the Prospectus were and, if still ongoing, are in all material respects, being conducted in material compliance with all laws and regulations applicable thereto in the jurisdictions in which they are being conducted and with all laws and regulations applicable to preclinical studies and clinical trials from which data will be submitted to support marketing approval. The descriptions in the Registration Statement, the Time of Sale Prospectus and the Prospectus of the results of such studies and trials are accurate and complete in all material respects and fairly present the data derived from such studies and trials. Except as disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, the Company has not received any written notices or statements from the FDA, the EMA or any other similar governmental agency or authority imposing, requiring, requesting or suggesting a clinical hold, termination, suspension or material modification for or of any clinical trial that is described in the Registration Statement, the Time of Sale Prospectus and the Prospectus. Except as disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, the Company has not received any written notices or statements from the FDA, the EMA or any other similar governmental agency, and otherwise has no knowledge of, or reason to believe that, (i) any investigational new drug application for any potential product of the Company is or has been rejected or determined to be non-approvable or conditionally approvable; and (ii) any license, approval, permit or authorization to conduct any clinical trial of any potential product of the Company has been, will be or may be suspended, revoked, modified or limited.

(ll) No Rights to Purchase Securities. The issuance and sale of the Shares as contemplated hereby will not cause any holder of any shares of capital stock, securities convertible into or exchangeable or exercisable for capital stock or options, warrants or other rights to purchase capital stock or any other securities of the Company to have any right to acquire any shares of preferred stock of the Company.

(mm) Compliance with Labor Laws. Except as otherwise disclosed in the Registration Statement, the Time of Sale Prospectus or the Prospectus or as would not, individually or in the aggregate, result in a Material Adverse Effect, no labor dispute with employees of the Company or any of its subsidiaries exists or, to the Company's knowledge, is threatened or imminent, and the Company is not aware of any existing or imminent labor disturbance by the subcontracted labor at any of the Company's facilities, which, in either case, would result in a Material Adverse Effect.

(nn) Solvency. Immediately after the Closing Date will be, the Company will be Solvent. As used herein, the term "**Solvent**" means, with respect to any person on a particular date, that on such date (i) the fair market value of the assets of such person is greater than the total amount of liabilities (including contingent liabilities) of such person, (ii) the present fair salable value of the assets of such person is greater than the amount that will be required to pay the probable liabilities of such person on its debts as they become absolute and matured, (iii) such person is able to realize upon its assets and pay its debts and other liabilities, including contingent obligations, as they mature and (iv) such person does not have unreasonably small capital.

(oo) Compliance with Sarbanes-Oxley. The Company and its subsidiaries and their respective officers and directors, in their capacities as such, are in compliance in all material respects with the applicable provisions of the Sarbanes-Oxley Act of 2002 (the "**Sarbanes-Oxley Act**," which term, as used herein, includes the rules and regulations of the Commission promulgated thereunder).

(pp) Regulations T, U, X. Neither the Company nor any of its subsidiaries or agents acting on its behalf has taken, and none of them will take, any action that might cause this Agreement or the issuance or sale of the Offered Shares to violate Regulation T, Regulation U or Regulation X of the Board of Governors of the Federal Reserve System.

(qq) eXtensible Business Reporting Language. The interactive eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

(rr) No Integration. Neither the Company, nor any of its affiliates, nor any person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause the Offered Securities to be integrated with prior offerings by the Company for purposes of the Securities Act which would require the registration of any such securities under the Securities Act.

Any certificate signed by any officer of the Company and delivered to any Underwriter or to counsel for the Underwriters in connection with the offering, or the purchase and sale, of the Offered Shares shall be deemed a representation and warranty by the Company to each Underwriter as to the matters covered thereby.

The Company has a reasonable basis for making each of the representations set forth in this Section 1. The Company acknowledges that the Underwriters and, for purposes of the opinions to be delivered pursuant to Section 6, counsel to the Company and counsel to the Underwriters, will rely upon the accuracy and truthfulness of the foregoing representations and hereby consents to such reliance.

Section 2. Purchase, Sale and Delivery of the Offered Shares.

(a) **The Firm Shares.** Upon the terms herein set forth, the Company agrees to issue and sell to the several Underwriters an aggregate of 23,625,084 Firm Shares. On the basis of the representations, warranties and agreements herein contained, and upon the terms but subject to the conditions herein set forth, the Underwriters agree, severally and not jointly, to purchase from the Company the respective number of Firm Shares set forth opposite their names on Schedule A. The purchase price per Firm Share to be paid by the several Underwriters to the Company shall be \$1.8571 per share.

(b) **The First Closing Date.** Delivery of book-entry certificates for the Firm Shares to be purchased by the Underwriters and payment therefor shall be made at the offices of Kramer Levin Naftalis & Frankel LLP, 1177 Avenue of the Americas, New York, NY 10036 (or such other place as may be agreed to by the Company and the Representative) at 9:00 a.m. New York City time, on April 19, 2017, or such other time and date not later than 1:30 p.m. New York City time, on April 19, 2017 as the Representative shall designate by notice to the Company (the time and date of such closing are called the “**First Closing Date**”). The Company hereby acknowledges that circumstances under which the Representative may provide notice to postpone the First Closing Date as originally scheduled include, but are not limited to, any determination by the Company or the Representative to recirculate to the public copies of an amended or supplemented Prospectus or a delay as contemplated by the provisions of Section 11.

(c) **The Optional Shares; Option Closing Date.** In addition, on the basis of the representations, warranties and agreements herein contained, and upon the terms but subject to the conditions herein set forth, the Company hereby grants an option to the several Underwriters to purchase, severally and not jointly, up to an aggregate of 3,543,763 Optional Shares from the Company at the purchase price per share to be paid by the Underwriters for the Firm Shares. The option granted hereunder may be exercised at any time and from time to time in whole or in part upon notice by the Representative to the Company, which notice may be given at any time within 30 days from the date of this Agreement. Such notice shall set forth (i) the aggregate number of Optional Shares as to which the Underwriters are exercising the option and (ii) the time, date and place at which book-entry certificates for the Optional Shares will be delivered (which time and date may be simultaneous with, but not earlier than, the First Closing Date; and in the event that such time and date are simultaneous with the First Closing Date, the term “**First Closing Date**” shall refer to the time and date of delivery of book-entry certificates for the Firm Shares and such Optional Shares). Any such time and date of delivery, if subsequent to the First Closing Date, is called an “**Option Closing Date**,” shall be determined by the Representative and shall not be earlier than three or later than five full business days after delivery of such notice of exercise. If any Optional Shares are to be purchased, (a) each Underwriter agrees, severally and not jointly, to purchase the number of Optional Shares (subject to such adjustments to eliminate fractional shares as the Representative may determine) set forth opposite their names on Schedule B and (b) the Company agrees to sell the number of Optional Shares set forth in the paragraph “Introductory” of this Agreement (subject to such adjustments to eliminate fractional shares as the Representative may determine). The Representative may cancel the option at any time prior to its expiration by giving written notice of such cancellation to the Company.

(d) **Public Offering of the Offered Shares.** The Representative hereby advises the Company that the Underwriters intend to offer for sale to the public, initially on the terms set forth in the Registration Statement, the Time of Sale Prospectus and the Prospectus, their respective portions of the Offered Shares as soon after this Agreement has been executed as the Representative, in its sole judgment, has determined is advisable and practicable.

(e) **Payment for the Offered Shares.** (i) Payment for the Offered Shares shall be made at the First Closing Date (and, if applicable, at each Option Closing Date) by wire transfer of immediately available funds to the order of the Company.

(ii) It is understood that the Representative has been authorized, for its own account and the accounts of the several Underwriters, to accept delivery of and receipt for, and make payment of the purchase price for, the Firm Shares and any Optional Shares the Underwriters have agreed to purchase. CF&Co., individually and not as the Representative of the Underwriters, may (but shall not be obligated to) make payment for any Offered Shares to be purchased by any Underwriter whose funds shall not have been received by the Representative by the First Closing Date or the applicable Option Closing Date, as the case may be, for the account of such Underwriter, but any such payment shall not relieve such Underwriter from any of its obligations under this Agreement.

(f) **Delivery of the Offered Shares.** The Company shall deliver, or cause to be delivered to the Representative for the accounts of the several Underwriters book-entry certificates for the Firm Shares at the First Closing Date, against the irrevocable release of a wire transfer of immediately available funds for the amount of the purchase price therefor. The Company shall also deliver, or cause to be delivered through the facilities of the Depository Trust Company (“DTC”) unless the Representative shall otherwise instruct, to the Representative for the accounts of the several Underwriters, book-entry certificates for the Optional Shares the Underwriters have agreed to purchase at the First Closing Date or the applicable Option Closing Date, as the case may be, against the release of a wire transfer of immediately available funds for the amount of the purchase price therefor. If the Representative so elects, delivery of the Offered Shares may be made by credit to the accounts designated by the Representative through The Depository Trust Company’s full fast transfer or DWAC programs. The book-entry certificates for the Offered Shares shall be registered in such names and denominations as the Representative shall have requested at least two full business days prior to the First Closing Date (or the applicable Option Closing Date, as the case may be) and shall be made available for inspection on the business day preceding the First Closing Date (or the applicable Option Closing Date, as the case may be) at a location in New York City as the Representative may designate. Time shall be of the essence, and delivery at the time and place specified in this Agreement is a further condition to the obligations of the Underwriters.

Section 3. Additional Covenants.

The Company further covenants and agrees with each Underwriter as follows:

(a) **Delivery of Registration Statement, Time of Sale Prospectus and Prospectus.** The Company shall furnish to the Representative in New York City, without charge, prior to 10:00 a.m. New York City time on the second business day succeeding the date of this Agreement and during the period when a prospectus relating to the Offered Shares is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) in connection with sales of the Offered Shares, as many copies of the Time of Sale Prospectus, the Prospectus and any supplements and amendments thereto or to the Registration Statement as the Representative may reasonably request.

(b) **Representative's Review of Proposed Amendments and Supplements.** During the period when a prospectus relating to the Offered Shares is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule), the Company (i) will furnish to the Representative for review, a reasonable period of time prior to the proposed time of filing of any proposed amendment or supplement to the Registration Statement, a copy of each such amendment or supplement and (ii) will not amend or supplement the Registration Statement without the Representative's prior written consent, not to be unreasonably withheld, conditioned or delayed. Prior to amending or supplementing any preliminary prospectus, the Time of Sale Prospectus or the Prospectus, the Company shall furnish to the Representative for review, a reasonable amount of time prior to the time of filing or use of the proposed amendment or supplement, a copy of each such proposed amendment or supplement. The Company shall not file or use any such proposed amendment or supplement without the Representative's prior written consent, not to be unreasonably withheld, conditioned or delayed. The Company shall file with the Commission within the applicable period specified in Rule 424(b) under the Securities Act any prospectus required to be filed pursuant to such Rule.

(c) **Free Writing Prospectuses.** The Company shall furnish to the Representative for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of each proposed free writing prospectus or any amendment or supplement thereto prepared by or on behalf of, used by, or referred to by the Company, and the Company shall not file, use or refer to any proposed free writing prospectus or any amendment or supplement thereto without the Representative's prior written consent, not to be unreasonably withheld, conditioned or delayed. The Company shall furnish to each Underwriter, without charge, as many copies of any free writing prospectus prepared by or on behalf of, used by or referred to by the Company as such Underwriter may reasonably request. If at any time when a prospectus is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) in connection with sales of the Offered Shares (but in any event if at any time through and including the First Closing Date) there occurred or occurs an event or development as a result of which any free writing prospectus prepared by or on behalf of, used by, or referred to by the Company conflicted or would conflict with the information contained in the Registration Statement or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at such time, not misleading, the Company shall promptly amend or supplement such free writing prospectus to eliminate or correct such conflict so that the statements in such free writing prospectus as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at such time, not misleading, as the case may be; *provided, however*, that prior to amending or supplementing any such free writing prospectus, the Company shall furnish to the Representative for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of such proposed amended or supplemented free writing prospectus, and the Company shall not file, use or refer to any such amended or supplemented free writing prospectus without the Representative's prior written consent, not to be unreasonably withheld, conditioned or delayed.

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

(e) **Amendments and Supplements to Time of Sale Prospectus.** If the Time of Sale Prospectus is being used to solicit offers to buy the Offered Shares at a time when the Prospectus is not yet available to prospective purchasers, and any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Time of Sale Prospectus so that the Time of Sale Prospectus does not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when delivered to a prospective purchaser, not misleading, or if any event shall occur or condition exist as a result of which the Time of Sale Prospectus conflicts with the information contained in the Registration Statement, or if, in the opinion of counsel for the Underwriters, it is necessary to amend or supplement the Time of Sale Prospectus to comply with applicable law, the Company shall (subject to Section 3(b) and Section 3(c)) promptly prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to any dealer upon request, either amendments or supplements to the Time of Sale Prospectus so that the statements in the Time of Sale Prospectus as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when delivered to a prospective purchaser, not misleading or so that the Time of Sale Prospectus, as amended or supplemented, will no longer conflict with the information contained in the Registration Statement, or so that the Time of Sale Prospectus, as amended or supplemented, will comply with applicable law.

(f) *Certain Notifications and Required Actions.* After the date of this Agreement, the Company shall promptly advise the Representative in writing (which may be by email) of: (i) the receipt of any comments of, or requests for additional or supplemental information from, the Commission relating to the Registration Statement received by the Company before the later of one year from the date of this Agreement or the expiration of the prospectus delivery period; (ii) the time and date of any filing of any post-effective amendment to the Registration Statement or any amendment or supplement to any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus or the Prospectus; (iii) the time and date that any post-effective amendment to the Registration Statement becomes effective; and (iv) the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto or any amendment or supplement to any preliminary prospectus, the Time of Sale Prospectus or the Prospectus or of any order preventing or suspending the use of any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus or the Prospectus, or of any proceedings to remove, suspend or terminate from listing or quotation the Shares from any securities exchange upon which they are listed for trading or included or designated for quotation, or of the threatening or initiation of any proceedings for any of such purposes. If the Commission shall enter any such stop order at any time, the Company will use its best efforts to obtain the lifting of such order as soon as practicable. Additionally, the Company agrees that it shall comply with all applicable provisions of Rule 424(b), Rule 433 and Rule 430B under the Securities Act and will use its reasonable efforts to confirm that any filings made by the Company under Rule 424(b) or Rule 433 were received in a timely manner by the Commission.

(g) *Amendments and Supplements to the Prospectus and Other Securities Act Matters.* If any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Prospectus so that the Prospectus does not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when the Prospectus is delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) to a purchaser, not misleading, or if in the opinion of the Representative or counsel for the Underwriters it is otherwise necessary to amend or supplement the Prospectus to comply with applicable law, the Company agrees (subject to Section 3(b) and Section 3(c)) to promptly prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to any dealer upon request, amendments or supplements to the Prospectus so that the statements in the Prospectus as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when the Prospectus is delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) to a purchaser, not misleading or so that the Prospectus, as amended or supplemented, will comply with applicable law. Neither the Representative's consent to, nor delivery of, any such amendment or supplement shall constitute a waiver of any of the Company's obligations under Section 3(b) or Section 3(c).

(h) **Blue Sky Compliance.** The Company shall reasonably cooperate with the Representative and counsel for the Underwriters to qualify or register (or to obtain exemptions from qualifying or registering) all or any part of the Offered Shares for offer and sale under the securities laws of the several states of the United States, the provinces of Canada or any other jurisdictions designated by the Representative, shall comply in all material respects with such laws and shall continue such qualifications, registrations and exemptions in effect so long as required for the distribution of the Offered Shares. The Company shall not be required to qualify as a foreign corporation or other entity or to take any action that would subject it to general service of process in any such jurisdiction where it is not presently qualified or where it would be subject to taxation as a foreign corporation or other entity. The Company will advise the Representative promptly of the suspension of the qualification or registration of (or any such exemption relating to) the Offered Shares for offering, sale or trading in any jurisdiction or any initiation or threat of any proceeding for any such purpose, and in the event of the issuance of any order suspending such qualification, registration or exemption, the Company shall use its reasonable best efforts to obtain the withdrawal thereof at the earliest possible moment.

(i) **Use of Proceeds.** The Company shall apply the net proceeds from the sale of the Offered Shares sold by it in the manner described under the caption "Use of Proceeds" in the Registration Statement, the Time of Sale Prospectus and the Prospectus.

(j) **Transfer Agent.** The Company shall continue to maintain, at its expense, a registrar and transfer agent for the Shares.

(k) **Earnings Statement.** The Company will make generally available to its security holders and to the Representative as soon as practicable an earnings statement (which need not be audited) covering a period of at least twelve months beginning with the first fiscal quarter of the Company commencing after the date of this Agreement that will satisfy the provisions of Section 11(a) of the Securities Act and the rules and regulations of the Commission thereunder.

(l) **Continued Compliance with Securities Laws.** The Company will comply with the Securities Act and the Exchange Act so as to permit the completion of the distribution of the Offered Shares as contemplated by this Agreement, the Registration Statement, the Time of Sale Prospectus and the Prospectus. Without limiting the generality of the foregoing, the Company will, during the period when a prospectus relating to the Offered Shares is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule), file on a timely basis with the Commission and the NASDAQ all reports and documents required to be filed under the Exchange Act.

(m) **DTC.** The Company will reasonably cooperate with the Representative and use its reasonable best efforts to permit the Offered Shares to be eligible for clearance and settlement through DTC.

(n) **Listing.** The Company will use its best efforts to maintain the listing of the Shares (including the Offered Shares) on the NASDAQ.

(o) **Company to Provide Copy of the Prospectus in Form That May be Downloaded from the Internet.** If requested by the Representative, the Company shall cause to be prepared and delivered, at its expense, within one business day from the effective date of this Agreement, to the Representative an "electronic Prospectus" to be used by the Underwriters in connection with the offering and sale of the Offered Shares. As used herein, the term "electronic Prospectus" means a form of the Prospectus, and any amendment or supplement thereto, that meets each of the following conditions: (i) it shall be encoded in an electronic format, satisfactory to the Representative, that may be transmitted electronically by the Representative and the other Underwriters to offerees and purchasers of the Offered Shares; (ii) it shall disclose the same information as the paper Prospectus, except to the extent that graphic and image material cannot be disseminated electronically, in which case such graphic and image material shall be replaced in the electronic Prospectus with a fair and accurate narrative description or tabular representation of such material, as appropriate; and (iii) it shall be in or convertible into a paper format or an electronic format, satisfactory to the Representative, that will allow investors to store and have continuously ready access to the Prospectus at any future time, without charge to investors (other than any fee charged for subscription to the Internet as a whole and for on-line time). The Company hereby confirms that it has included or will include in the Prospectus filed pursuant to EDGAR or otherwise with the Commission and in the Registration Statement at the time it was declared effective an undertaking that, upon receipt of a request by an investor or his or her representative, the Company shall transmit or cause to be transmitted promptly, without charge, a paper copy of the Prospectus.

(p) **Agreement Not to Offer or Sell Additional Shares.** During the period commencing on and including the date hereof and continuing through and including the 90th day following the date of the Prospectus (such period, being referred to herein as the “**Lock-up Period**”), the Company will not, without the prior written consent of the Representative (which consent may be withheld in its sole discretion), directly or indirectly: (i) sell, offer to sell, contract to sell or lend any Shares or Related Securities (as defined below); (ii) effect any short sale, or establish or increase any “put equivalent position” (as defined in Rule 16a-1(h) under the Exchange Act) or liquidate or decrease any “call equivalent position” (as defined in Rule 16a-1(b) under the Exchange Act) of any Shares or Related Securities; (iii) pledge, hypothecate or grant any security interest in any Shares or Related Securities; (iv) in any other way transfer or dispose of any Shares or Related Securities; (v) enter into any swap, hedge or similar arrangement or agreement that transfers, in whole or in part, the economic risk of ownership of any Shares or Related Securities, regardless of whether any such transaction is to be settled in securities, in cash or otherwise; (vi) announce the offering of any Shares or Related Securities; (vii) file any registration statement under the Securities Act in respect of any Shares or Related Securities (other than as contemplated by this Agreement with respect to the Offered Shares); or (viii) publicly announce the intention to do any of the foregoing; *provided, however*, that the Company may (A) effect the transactions contemplated hereby, (B) issue Shares or options to purchase Shares, or issue Shares upon exercise of options, pursuant to any stock option, stock bonus or other stock plan or arrangement described in the Registration Statement, the Time of Sale Prospectus and the Prospectus, (C) issue Shares pursuant to the conversion or exchange of convertible or exchangeable securities or the exercise of warrants outstanding on the date hereof and described in the Registration Statement, the Time of Sale Prospectus and the Prospectus, (D) file a registration statement on Form S-8 to register Shares issuable pursuant to the terms of a stock option, stock bonus or other stock plan or arrangement described in the Registration Statement, the Time of Sale Prospectus and the Prospectus, (E) issue Shares in connection with any joint venture, commercial or collaborative relationship or the acquisition or license by the Company of the securities, businesses, property or other assets of another person or entity or pursuant to any employee benefit plan assumed by the Company in connection with any such acquisition; provided, however, that in the case of clause (E), the sum of the aggregate number of shares of common stock of the Company so issued shall not exceed 5% of the Shares outstanding immediately prior to such issuance, (F) issue and sale Shares pursuant to that certain At Market Issuance Sales Agreement, dated November 3, 2014, by and between the Company and MLV & Co. LLC, (G) issue Shares in connection with the proposed acquisition of Virtu Biologics Limited as contemplated by that certain binding term sheet, dated November 15, 2016, by and among Sorrento Therapeutics, Inc., TNK Therapeutics, Inc. and Virtu Biologics Limited, (H) issue Shares in connection with the proposed acquisition of Semnur Pharmaceuticals, Inc. as contemplated by that certain binding term sheet, dated August 15, 2016, by and among Sorrento Therapeutics, Inc., Scintilla Pharmaceuticals, Inc. and Semnur Pharmaceuticals, Inc., (I) issue Shares upon the achievement of certain milestones pursuant to that certain Stock Purchase Agreement, dated November 8, 2016, by and among Sorrento Therapeutics, Inc., Scilex Pharmaceuticals Inc., the stockholders of Scilex Pharmaceuticals Inc. party thereto and SPI Shareholders Representative, LLC, as representative of the stockholders of Scilex Pharmaceuticals Inc. party thereto, and (J) issue Shares pursuant to that certain Stock Purchase Agreement, dated as of August 7, 2015, by and among TNK Therapeutics, Inc., BDL Products, Inc., the stockholders of BDL Products, Inc., Richard Junghans, M.D., Ph.D. as the Stockholders’ Representative and Sorrento Therapeutics, Inc., as amended. For purposes of the foregoing, “**Related Securities**” shall mean any options or warrants or other rights to acquire Shares or any securities exchangeable or exercisable for or convertible into Shares, or to acquire other securities or rights ultimately exchangeable or exercisable for, or convertible into, Shares. Nothing in this Section 3(p) shall prevent the Company from filing any registration statements on Form S-8, including any related reoffer prospectus in accordance with Forms S-8 and S-3, or S-4 relating to the issuance of securities pursuant to clauses (A), (B), (C), (D), (E), (F), (G), (H), (I) or (J) set forth in this Section 3(p).

(q) Future Reports to the Representative. During the period of five years hereafter, the Company will furnish to the Representative, c/o Cantor Fitzgerald & Co., 499 Park Avenue, New York, New York 10022, Attention: Equity Capital Markets, with copies to Cantor Fitzgerald & Co., 499 Park Avenue, New York, New York 10022, Attention: General Counsel: (i) as soon as practicable after the end of each fiscal year, copies of the Annual Report of the Company containing the balance sheet of the Company as of the close of such fiscal year and statements of income, stockholders' equity and cash flows for the year then ended and the opinion thereon of the Company's independent public or certified public accountants; (ii) as soon as practicable after the filing thereof, copies of each proxy statement, Annual Report on Form 10-K, Quarterly Report on Form 10-Q, Current Report on Form 8-K or other public report filed by the Company with the Commission, FINRA or any securities exchange; and (iii) as soon as available, copies of any report or communication of the Company furnished or made available generally to holders of its capital stock; *provided, however*, that the requirements of this Section 3(q) shall be satisfied to the extent that such reports, statement, communications, financial statements or other documents are available on EDGAR.

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

(s) No Stabilization or Manipulation; Compliance with Regulation M. The Company will not take, and will ensure that no affiliate of the Company will take, directly or indirectly, without giving effect to activities by the Underwriters, any action designed to or that might cause or result in stabilization or manipulation of the price of the Shares or any reference security with respect to the Shares, whether to facilitate the sale or resale of the Offered Shares or otherwise, and the Company will, and shall cause each of its affiliates to, comply with all applicable provisions of Regulation M.

(t) Enforce Lock-Up Agreements. During the Lock-up Period, the Company will enforce all agreements between the Company and any of its security holders that restrict or prohibit, expressly or in operation, the offer, sale or transfer of Shares or Related Securities or any of the other actions restricted or prohibited under the terms of the form of Lock-up Agreement. In addition, the Company will direct the transfer agent to place stop transfer restrictions upon any such securities of the Company that are bound by such "lock-up" agreements for the duration of the periods contemplated in such agreements, including, without limitation, the securities of the Company subject to the "lock-up" agreements entered into by the Company's executive officers and directors pursuant to Section 6(j) hereof.

(u) **Company to Provide Interim Financial Statements.** Prior to the First Closing Date and each applicable Option Closing Date, the Company will furnish the Underwriters, as soon as practicable after they have been prepared by or are available to the Company, a copy of any unaudited interim financial statements of the Company for any period subsequent to the period covered by the most recent financial statements appearing in the Registration Statement and the Prospectus.

The Representative, on behalf of the several Underwriters, may, in its sole discretion, waive in writing the performance by the Company of any one or more of the foregoing covenants or extend the time for their performance.

Section 4. Payment of Expenses. The Company agrees to pay all costs, fees and expenses incurred in connection with the performance of its obligations hereunder and in connection with the transactions contemplated hereby, including without limitation (i) all expenses incident to the issuance and delivery of the Offered Shares (including all printing and engraving costs), (ii) all fees and expenses of the registrar and transfer agent of the Shares, (iii) all necessary issue, transfer and other stamp taxes in connection with the issuance and sale of the Offered Shares to the Underwriters, (iv) all fees and expenses of the Company's counsel, independent public or certified public accountants and other advisors, (v) all costs and expenses incurred in connection with the preparation, printing, filing, shipping and distribution of the Registration Statement (including financial statements, exhibits, schedules, consents and certificates of experts), the Time of Sale Prospectus, the Prospectus, each free writing prospectus prepared by or on behalf of, used by, or referred to by the Company, and each preliminary prospectus, and all amendments and supplements thereto, and this Agreement, (vi) all filing fees, attorneys' fees and expenses incurred by the Company or the Underwriters in connection with qualifying or registering (or obtaining exemptions from the qualification or registration of) all or any part of the Offered Shares for offer and sale under the state securities or blue sky laws or the provincial securities laws of Canada, and, if requested by the Representative, preparing and printing a "Blue Sky Survey" or memorandum and a "Canadian wrapper", and any supplements thereto, advising the Underwriters of such qualifications, registrations and exemptions, in an amount not to exceed \$5,000, (vii) the reasonable, actual and documented out-of-pocket fees and expenses of the Underwriters in connection with determining their compliance with the rules and regulations of FINRA related to the Underwriters' participation in the offering and distribution of the Offered Shares, including any related filing fees and the legal fees of, and disbursements by, counsel to the Underwriters, in an aggregate amount not to exceed \$5,000, (viii) the costs and expenses of the Company relating to investor presentations on any "road show", including, without limitation, expenses associated with the preparation or dissemination of any electronic road show, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations with the prior approval of the Company, reasonable, actual and documented travel and lodging expenses of the Representative, employees and officers of the Company and any such consultants, and 50% of the reasonable, actual and documented cost of any aircraft chartered in connection with the road show, the remaining 50% of the cost of such aircraft to be paid by the Underwriters, (ix) the fees and expenses associated with listing the Offered Shares on the NASDAQ, and (x) all other fees, costs and expenses of the nature referred to in Item 14 of Part II of the Registration Statement. Any such amount payable to the underwriters may be deducted from the purchase price for the Offered Shares to the extent invoiced prior to Closing. Except as provided in this Section 4 or in Section 7, Section 9 or Section 10, the Underwriters shall pay their own expenses, including the fees and disbursements of their counsel.

Section 5. Covenant of the Underwriters. Each Underwriter severally and not jointly covenants with the Company not to take any action that would result in the Company being required to file with the Commission pursuant to Rule 433(d) under the Securities Act a free writing prospectus prepared by or on behalf of such Underwriter that otherwise would not, but for such actions, be required to be filed by the Company under Rule 433(d).

Section 6. Conditions of the Obligations of the Underwriters. The respective obligations of the several Underwriters hereunder to purchase and pay for the Offered Shares as provided herein on the First Closing Date and, with respect to the Optional Shares, each Option Closing Date, shall be subject to the accuracy of the representations and warranties on the part of the Company set forth in Section 1 as of the date hereof and as of the First Closing Date as though then made and, with respect to the Optional Shares, as of each Option Closing Date as though then made, to the timely performance by the Company of its covenants and other obligations hereunder, and to each of the following additional conditions:

(a) **Comfort Letter.** On the date hereof, the Representative shall have received from (i) each of Mayer Hoffman McCann P.C. and Deloitte & Touche LLP, the independent registered public accounting firms for the Company; and (ii) BDO USA, LLP, the independent registered public accounting firm for Scilex Pharmaceuticals Inc., a letter dated the date hereof addressed to the Underwriters, in form and substance satisfactory to the Representative, containing statements and information of the type ordinarily included in accountant's "comfort letters" to underwriters, delivered according to Statement of Auditing Standards No. 72 (or any successor bulletin), with respect to the audited and unaudited financial statements and certain financial information contained in the Registration Statement, the Time of Sale Prospectus, and each free writing prospectus, if any. Notwithstanding the foregoing or anything herein to the contrary, the Representative hereby acknowledges and agrees that the "comfort letters" shall not be required to provide negative assurance as to subsequent changes in any specified financial statement items as of a date 135 days or more subsequent to the end of the Company's third quarter unaudited financial statements as provided in paragraph .47 and example O in paragraph .64 of AU Section 634 (SAS No. 72): Letters for Underwriters and Certain Other Requesting Parties.

(b) **Compliance with Registration Requirements; No Stop Order; No Objection from FINRA.** For a period from and after the date of this Agreement and through and including the First Closing Date and, with respect to any Optional Shares purchased after the First Closing Date, each Option Closing Date:

(i) The Company shall have filed the Prospectus with the Commission (including the information required by Rule 430A under the Securities Act) in the manner and within the time period required by Rule 424(b) under the Securities Act; or the Company shall have filed a post-effective amendment to the Registration Statement containing the information required by such Rule 430A, and such post-effective amendment shall have become effective.

(ii) No stop order suspending the effectiveness of the Registration Statement or any post-effective amendment to the Registration Statement shall be in effect, and no proceedings for such purpose shall have been instituted or threatened by the Commission.

(iii) FINRA shall have raised no objection to the fairness and reasonableness of the underwriting terms and arrangements.

(c) **No Material Adverse Effect or Ratings Agency Change.** For the period from and after the date of this Agreement and through and including the First Closing Date and, with respect to any Optional Shares purchased after the First Closing Date, each Option Closing Date, in the judgment of the Representative there shall not have occurred any Material Adverse Effect.

(d) **Opinion of Counsel for the Company.** On each of the First Closing Date and each Option Closing Date the Representative shall have received the opinion and negative assurance letter of Paul Hastings LLP, counsel for the Company, dated as of such date, in form and substance satisfactory to the Representative.

(e) **Opinion of Intellectual Property Counsel.** On each of the First Closing Date and each Option Closing Date, the Representative shall have received the opinion of McCarter & English, LLP, counsel for the Company with respect to intellectual property matters, dated as of such date, in form and substance satisfactory to the Representative.

(f) **Opinion of Counsel for the Underwriters.** On each of the First Closing Date and each Option Closing Date the Representative shall have received the opinion of Kramer Levin Naftalis & Frankel LLP, counsel for the Underwriters in connection with the offer and sale of the Offered Shares, in form and substance satisfactory to the Underwriters, dated as of such date.

(g) **Officers' Certificate.** On each of the First Closing Date and each Option Closing Date, the Representative shall have received a certificate executed by the Chief Executive Officer or President of the Company and the Chief Financial Officer of the Company, dated as of such date, to the effect set forth in Section 6(b)(ii) and further to the effect that:

(i) for the period from and including the date of this Agreement through and including such date, there has not occurred any Material Adverse Effect;

(ii) the representations, warranties and covenants of the Company set forth in Section 1 are true and correct with the same force and effect as though expressly made on and as of such date; and

(iii) the Company has complied with all the agreements hereunder and satisfied all the conditions on its part to be performed or satisfied hereunder at or prior to such date.

(h) **[Reserved.]**

(i) **Bring-down Comfort Letter.** On each of the First Closing Date and each Option Closing Date the Representative shall have received from (i) each of Mayer Hoffman McCann P.C. and Deloitte & Touche LLP, the independent registered public accounting firms for the Company and (ii) BDO, the independent registered public accounting firm for Scilex Pharmaceuticals Inc., a letter dated such date, in form and substance satisfactory to the Representative, which letter shall: (A) reaffirm the statements made in the letter furnished by them pursuant to Section 6(a), except that the specified date referred to therein for the carrying out of procedures shall be no more than three days prior to the First Closing Date or the applicable Option Closing Date, as the case may be; and (B) cover certain financial information contained in the Prospectus. Notwithstanding the foregoing or anything herein to the contrary, the Representative hereby acknowledges and agrees that the "bring-down comfort letters" shall not be required to provide negative assurance as to subsequent changes in any specified financial statement items as of a date 135 days or more subsequent to the end of the Company's third quarter unaudited financial statements as provided in paragraph .47 and example O in paragraph .64 of AU Section 634 (SAS No. 72): Letters for Underwriters and Certain Other Requesting Parties.

(j) **Lock-Up Agreements.** On or prior to the date hereof, the Company shall have furnished to the Representative an agreement in the form of Exhibit B hereto from the directors and officers (as defined in Rule 16a-1(f) under the Exchange Act), and each such agreement shall be in full force and effect on each of the First Closing Date and each Option Closing Date.

(k) **Rule 462(b) Registration Statement.** In the event that a Rule 462(b) Registration Statement is filed in connection with the offering contemplated by this Agreement, such Rule 462(b) Registration Statement shall have been filed with the Commission on the date of this Agreement and shall have become effective automatically upon such filing.

(l) **NASDAQ.** The Company shall have submitted a listing of additional shares notification form to NASDAQ with respect to the Offered Shares and shall have received no objection thereto from NASDAQ.

(m) **Additional Documents.** On or before each of the First Closing Date and each Option Closing Date, the Representative and counsel for the Underwriters shall have received such information, documents and opinions as they may reasonably request for the purposes of enabling them to pass upon the issuance and sale of the Offered Shares as contemplated herein, or in order to evidence the accuracy of any of the representations and warranties, or the satisfaction of any of the conditions or agreements, herein contained; and all proceedings taken by the Company in connection with the issuance and sale of the Offered Shares as contemplated herein and in connection with the other transactions contemplated by this Agreement shall be satisfactory in form and substance to the Representative and counsel for the Underwriters.

If any condition specified in this Section 6 is not satisfied when and as required to be satisfied, this Agreement may be terminated by the Representative by notice from the Representative to the Company at any time on or prior to the First Closing Date and, with respect to the Optional Shares, at any time on or prior to the applicable Option Closing Date, which termination shall be without liability on the part of any party to any other party, except that Section 4, Section 7, Section 9 and Section 10 shall at all times be effective and shall survive such termination.

Section 7. Reimbursement of Underwriters' Expenses. If this Agreement is terminated by the Representative pursuant to Section 6, Section 11 or Section 12, or if the sale to the Underwriters of the Offered Shares on the First Closing Date is not consummated because of any refusal, inability or failure on the part of the Company to perform any agreement herein or to comply with any provision hereof, the Company agrees to reimburse the Representative and the other Underwriters (or such Underwriters as have terminated this Agreement with respect to themselves), severally, upon demand for all out-of-pocket expenses that shall have been reasonably incurred by the Representative and the Underwriters in connection with the proposed purchase and the offering and sale of the Offered Shares, including, but not limited to, fees and disbursements of counsel, printing expenses, travel expenses, postage, facsimile and telephone charges; *provided, however*, that for the purposes of this Section 7, the Company will in no event be liable to any of the Underwriters for any amounts, including, without limitation, damages on account of loss of anticipated profits from the sale of the Offered Shares; *provided further, however*, that in the event any such termination is effected after the First Closing Date but prior to any Option Closing Date with respect to the purchase of any Optional Shares, the Company shall only reimburse the Underwriters for all of their out-of-pocket expenses, including the reasonable fees and disbursements of counsel for the Underwriters, incurred after the First Closing Date in connection with the proposed purchase of any such Optional Shares. For the avoidance of doubt, it is understood that the Company will not pay or reimburse any costs, fees or expenses incurred by any Underwriter that defaults on its obligations to purchase the Offered Shares.

Section 8. Effectiveness of this Agreement. This Agreement shall become effective upon the execution and delivery hereof by the parties hereto.

Section 9. Indemnification.

(a) **Indemnification of the Underwriters.** The Company agrees to indemnify and hold harmless each Underwriter, its affiliates and their respective directors, officers, employees and agents, and each person, if any, who controls each Underwriter within the meaning of the Securities Act or the Exchange Act as follows:

(i) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, joint or several, arising out of or based upon any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading, or arising out of any untrue statement or alleged untrue statement of a material fact included in any related preliminary prospectus, Time of Sale Prospectus, any free writing prospectus (or any amendment or supplement thereto), or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading;

(ii) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, joint or several, to the extent of the aggregate amount paid in settlement of any litigation, or any investigation or proceeding by any Governmental Entity, commenced or threatened, or of any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission; *provided* that (subject to Section 9(d)) any such settlement is effected with the written consent of the Company, which consent shall not unreasonably be delayed or withheld;

(iii) against any and all expense whatsoever, as incurred (including the fees and disbursements of counsel), reasonably incurred in investigating, preparing or defending against any litigation, or any investigation or proceeding by any Governmental Entity, commenced or threatened, or any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission (whether or not a party), to the extent that any such expense is not paid under (i) or (ii) above;

(iv) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, joint or several, arising out of or based upon any breach of a representation, warranty or covenant made by the Company in this Agreement,

provided, however, that this indemnity agreement shall not apply to any loss, liability, claim, damage or expense to the extent arising out of or based upon any untrue statement or omission or alleged untrue statement or omission made solely in reliance upon and in conformity with written information furnished to the Company by the Underwriter expressly for use in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, or any free writing prospectus (or any amendment or supplement thereto).

(b) *Indemnification of the Company, its Directors and Officers.* Each Underwriter agrees, severally and not jointly, to indemnify and hold harmless the Company, each of its directors, each of its officers who signed the Registration Statement or the Annual Report and each person, if any, who controls the Company within the meaning of the Securities Act or the Exchange Act, against any and all loss, liability, claim, damage and expense whatsoever described in the indemnity contained in Section 9(a), as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions, made in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with information relating to such Underwriter and furnished to the Company in writing by such Underwriter or Underwriters expressly for use therein. The Company hereby acknowledges that the only information that the Underwriter or Underwriters has furnished to the Company expressly for use in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus (or any amendment or supplement thereto) are the statements set forth in the first sentence of the third paragraph, the second sentence of the fourth paragraph and the first sentence in the fifth paragraph under the caption "Underwriting" in the Preliminary Prospectus.

(c) **Notifications and Other Indemnification Procedures.** Any party that proposes to assert the right to be indemnified under this Section 9 will, promptly after receipt of notice of commencement of any action against such party in respect of which a claim is to be made against an indemnifying party or parties under this Section 9, notify each such indemnifying party of the commencement of such action, enclosing a copy of all papers served, but the omission so to notify such indemnifying party will not relieve the indemnifying party from (i) any liability that it might have to any indemnified party otherwise than under this Section 9 and (ii) any liability that it may have to any indemnified party under the foregoing provision of this Section 9 unless, and only to the extent that, such omission results in the forfeiture of substantive rights or defenses by the indemnifying party. Upon request of the indemnified party, the indemnifying party shall retain counsel reasonably satisfactory to the indemnified party to represent the indemnified party that the indemnified party may designate in such proceeding and shall pay the actual and reasonable fees and disbursements of such counsel related to such proceeding as incurred. If any such action is brought against any indemnified party and it notifies the indemnifying party of its commencement, the indemnifying party will be entitled to participate in and, to the extent that it elects by delivering written notice to the indemnified party promptly after receiving notice of the commencement of the action from the indemnified party, jointly with any other indemnifying party similarly notified, to assume the defense of the action, with counsel reasonably satisfactory to the indemnified party, and after notice from the indemnifying party to the indemnified party of its election to assume the defense, the indemnifying party will not be liable to the indemnified party for any other legal expenses except as provided below and except for the reasonable costs of investigation subsequently incurred by the indemnified party in connection with the defense. The indemnified party will have the right to employ its own counsel in any such action, but the fees, expenses and other charges of such counsel will be at the expense of such indemnified party unless (1) the employment of counsel by the indemnified party has been authorized in writing by the indemnifying party, (2) the indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, (3) a conflict or potential conflict exists (based on advice of counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party will not have the right to direct the defense of such action on behalf of the indemnified party) or (4) the indemnifying party has not in fact employed counsel to assume the defense of such action or counsel satisfactory to the indemnified party, in each case, within a reasonable time after receiving notice of the commencement of the action; in each of which cases the reasonable fees, disbursements and other charges of counsel will be at the expense of the indemnifying party or parties. It is understood that the indemnifying party or parties shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable fees, disbursements and other charges of more than one separate firm admitted to practice in such jurisdiction (plus local counsel) at any one time for all such indemnified party or parties. All such fees, disbursements and other charges will be reimbursed by the indemnifying party promptly as they are reasonably incurred. An indemnifying party will not, in any event, be liable for any settlement of any action or claim effected without its written consent. No indemnifying party shall, without the prior written consent of each indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action or proceeding relating to the matters contemplated by this Section 9 (whether or not any indemnified party is a party thereto), unless such settlement, compromise or consent (1) includes an express, full and unconditional release of each indemnified party from all liability arising out of such litigation, investigation, proceeding or claim and (2) 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.

(d) **Settlement Without Consent if Failure to Reimburse.** If an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for reasonable fees and expenses of counsel, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated by Section 9(a)(ii) effected without its written consent if (1) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request, (2) such indemnifying party shall have received notice of the terms of such settlement at least 30 days prior to such settlement being entered into and (3) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

Section 10. Contribution. In order to provide for just and equitable contribution in circumstances in which the indemnification provided for in Section 9 is applicable in accordance with its terms but for any reason is held to be unavailable from the Company or the Underwriters, the Company and the Underwriters will contribute to the total losses, claims, liabilities, expenses and damages (including any investigative, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claim asserted, but after deducting any contribution received by the Company from persons other than the Underwriters, such as persons who control the Company within the meaning of the Securities Act, officers of the Company who signed the Registration Statement or the Annual Report and directors of the Company, who also may be liable for contribution) to which the Company and the Underwriters may be subject in such proportion as shall be appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other hand. The relative benefits received by the Company on the one hand and the Underwriters on the other hand shall be deemed to be in the same proportion as the total net proceeds from the sale of the Offered Shares (before deducting expenses) received by the Company bear to the total compensation received by the Underwriters (before deducting expenses) from the sale of Offered Shares on behalf of the Company. If, but only if, the allocation provided by the foregoing sentence is not permitted by applicable law, the allocation of contribution shall be made in such proportion as is appropriate to reflect not only the relative benefits referred to in the foregoing sentence but also the relative fault of the Company, on the one hand, and the Underwriters, on the other hand, with respect to the statements or omission that resulted in such loss, claim, liability, expense or damage, or action in respect thereof, as well as any other relevant equitable considerations with respect to such offering. Such relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 10 were to be determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, liability, expense, or damage, or action in respect thereof, referred to above in this Section 10 shall be deemed to include, for the purpose of this Section 10, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim to the extent consistent with Section 9(c) above. Notwithstanding the foregoing provisions of Section 9, the Underwriters shall not be required to contribute any amount in excess of the commissions actually received by it under this Agreement and no person found guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 10, any person who controls a party to this Agreement within the meaning of the Securities Act, and any officers, directors, partners, employees or agents of the Underwriters or their respective affiliates, will have the same rights to contribution as that party, and each director of the Company and each officer of the Company who signed the Registration Statement or the Annual Report will have the same rights to contribution as the Company, subject in each case to the provisions hereof. Any party entitled to contribution, promptly after receipt of notice of commencement of any action against such party in respect of which a claim for contribution may be made under this Section 10, will notify any such party or parties from whom contribution may be sought, but the omission to so notify will not relieve that party or parties from whom contribution may be sought from any other obligation it or they may have under this Section 10 except to the extent that the failure to so notify such other party materially prejudiced the substantive rights or defenses of the party from whom contribution is sought. Except for a settlement entered into pursuant to the last sentence of 9(c) hereof, no party will be liable for contribution with respect to any action or claim settled without its written consent if such consent is required pursuant to Section 9(c).

Section 11. Default of One or More of the Several Underwriters. If, on the First Closing Date or any Option Closing Date any one or more of the several Underwriters shall fail or refuse to purchase Offered Shares that it or they have agreed to purchase hereunder on such date, and the aggregate number of Offered Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase does not exceed 10% of the aggregate number of the Offered Shares to be purchased on such date, the Representative may make arrangements satisfactory to the Company for the purchase of such Offered Shares by other persons, including any of the Underwriters, but if no such arrangements are made by such date, the other Underwriters shall be obligated, severally and not jointly, in the proportions that the number of Firm Shares set forth opposite their respective names on Schedule A bears to the aggregate number of Firm Shares set forth opposite the names of all such non-defaulting Underwriters, or in such other proportions as may be specified by the Representative with the consent of the non-defaulting Underwriters, to purchase the Offered Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase on such date. If, on the First Closing Date or any Option Closing Date any one or more of the Underwriters shall fail or refuse to purchase Offered Shares and the aggregate number of Offered Shares with respect to which such default occurs exceeds 10% of the aggregate number of Offered Shares to be purchased on such date, and arrangements satisfactory to the Representative and the Company for the purchase of such Offered Shares are not made within 48 hours after such default, this Agreement shall terminate without liability of any party to any other party except that the provisions of Section 4, Section 7, Section 9 and Section 10 shall at all times be effective and shall survive such termination. In any such case either the Representative or the Company shall have the right to postpone the First Closing Date or the applicable Option Closing Date, as the case may be, but in no event for longer than seven days in order that the required changes, if any, to the Registration Statement and the Prospectus or any other documents or arrangements may be effected.

As used in this Agreement, the term “**Underwriter**” shall be deemed to include any person substituted for a defaulting Underwriter under this Section 11. Any action taken under this Section 11 shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

Section 12. Termination of this Agreement. Prior to the purchase of the Firm Shares by the Underwriters on the First Closing Date, this Agreement may be terminated by the Representative by notice given to the Company if at any time: (i) trading or quotation in any of the Company’s securities shall have been suspended or limited by the Commission or by the NASDAQ, or trading in securities generally on either the NASDAQ or the NYSE shall have been suspended or limited, or minimum or maximum prices shall have been generally established on any of such stock exchanges; (ii) a general banking moratorium shall have been declared by any of federal, New York, Delaware or California authorities; (iii) there shall have occurred any outbreak or escalation of national or international hostilities or any crisis or calamity, or any change in the United States or international financial markets, or any substantial change or development involving a prospective substantial change in United States’ or international political, financial or economic conditions, as in the judgment of the Representative is material and adverse and makes it impracticable to market the Offered Shares in the manner and on the terms described in the Time of Sale Prospectus or the Prospectus or to enforce contracts for the sale of securities; (iv) in the judgment of the Representative there shall have occurred any Material Adverse Effect; or (v) the Company shall have sustained a loss by strike, fire, flood, earthquake, accident or other calamity of such character as in the judgment of the Representative may interfere materially with the conduct of the business and operations of the Company regardless of whether or not such loss shall have been insured. Any termination pursuant to this Section 12 shall be without liability on the part of (a) the Company to any Underwriter, except that the Company shall be obligated to reimburse the expenses of the Representative and the Underwriters pursuant to Section 4 or Section 7 or (b) any Underwriter to the Company; *provided, however,* that the provisions of Section 9 and Section 10 shall at all times be effective and shall survive such termination.

Section 13. No Advisory or Fiduciary Relationship. The Company acknowledges and agrees that (a) the purchase and sale of the Offered Shares pursuant to this Agreement, including the determination of the public offering price of the Offered Shares and any related discounts and commissions, is an arm's-length commercial transaction between the Company, on the one hand, and the several Underwriters, on the other hand, (b) in connection with the offering contemplated hereby and the process leading to such transaction, each Underwriter is and has been acting solely as a principal and is not the agent or fiduciary of the Company, or its stockholders, or its creditors, employees or any other party, (c) no Underwriter has assumed or will assume an advisory or fiduciary responsibility in favor of the Company with respect to the offering contemplated hereby or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company on other matters) and no Underwriter has any obligation to the Company with respect to the offering contemplated hereby except the obligations expressly set forth in this Agreement, (d) the Underwriters and their respective affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Company, and (e) the Underwriters have not provided any legal, accounting, regulatory or tax advice with respect to the offering contemplated hereby and the Company has consulted its own legal, accounting, regulatory and tax advisors to the extent it deemed appropriate.

Section 14. Representations and Indemnities to Survive Delivery. The respective indemnities, agreements, representations, warranties and other statements of the Company, of its officers and of the several Underwriters set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by or on behalf of any Underwriter or the Company or any of its or their partners, officers, directors or employees or any controlling person, as the case may be, and, anything herein to the contrary notwithstanding, will survive delivery of and payment for the Offered Shares sold hereunder and any termination of this Agreement.

Section 15. Notices. All communications hereunder shall be in writing and shall be mailed, hand delivered or telecopied and confirmed to the parties hereto as follows:

If to the Representative: Cantor Fitzgerald & Co.
499 Park Avenue
New York, NY 10022
Facsimile: (212) 829-4708
Attention: General Counsel

with a copy to: Kramer Levin Naftalis & Frankel LLP
1177 Avenue of the Americas
New York, New York 10036
Attention: Richard E. Farley
Christopher S. Auguste

If to the Company: Sorrento Therapeutics, Inc.
9380 Judicial Drive
San Diego, CA 92121
Attention: Chief Executive Officer

with a copy to: Paul Hastings LLP
1117 S. California Avenue
Palo Alto, California 94304
Facsimile: (650) 320-1904
Attention: Jeff Hartlin

Any party hereto may change the address for receipt of communications by giving written notice to the others.

Section 16. Successors. This Agreement will inure to the benefit of and be binding upon the parties hereto, including any substitute Underwriters pursuant to Section 11, and to the benefit of the affiliates, directors, officers, employees, agents and controlling persons referred to in Section 9 and Section 10, and in each case their respective successors, and personal representative, and no other person will have any right or obligation hereunder. The term “**successors**” shall not include any purchaser of the Offered Shares as such from any of the Underwriters merely by reason of such purchase.

Section 17. Partial Unenforceability. 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.

Section 18. Governing Law Provisions. This Agreement shall be governed by and construed in accordance with the internal laws of the State of New York applicable to agreements made and to be performed in such state, without regard to the conflicts of laws principles thereof. Any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby (“**Related Proceedings**”) shall be instituted in the federal courts of the United States of America located in the Borough of Manhattan in the City of New York or the courts of the State of New York in each case located in the Borough of Manhattan in the City of New York (collectively, the “**Specified Courts**”), and each party irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court, as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party’s address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum.

Section 19. Construction.

- (a) the section and exhibit headings herein are for convenience only and shall not affect the construction hereof;
- (b) words defined in the singular shall have a comparable meaning when used in the plural, and vice versa;
- (c) the words “hereof,” “hereto,” “herein” and “hereunder” and words of similar import, when used in this Agreement, shall refer to this Agreement as a whole and not to any particular provision of this Agreement;

(d) wherever the word “include,” “includes” or “including” is used in this Agreement, it shall be deemed to be followed by the words “without limitation”;

(e) references herein to any gender shall include each other gender;

(f) references herein to any law, statute, ordinance, code, regulation, rule or other requirement of any Governmental Entity shall be deemed to refer to such law, statute, ordinance, code, regulation, rule or other requirement of any Governmental Entity as amended, reenacted, supplemented or superseded in whole or in part and in effect from time to time and also to all rules and regulations promulgated thereunder;

(g) if the last day for the giving of any notice or the performance of any act required or permitted under this Agreement is a day that is not a business day, then the time for the giving of such notice or the performance of such action shall be extended to the next succeeding business day; and

(h) “**knowledge**” means, as it pertains to the Company, the actual knowledge of the officers and directors of the Company, together with the knowledge which they would have had if they had conducted a reasonable inquiry of the relevant persons into the relevant subject matter.

Section 20. General Provisions. This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. This Agreement may be executed in two or more counterparts, including by facsimile or other electronic means, each one of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. The section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement.

Each of the parties hereto acknowledges that it is a sophisticated business person who was adequately represented by counsel during negotiations regarding the provisions hereof, including, without limitation, the indemnification provisions of Section 9 and the contribution provisions of Section 10, and is fully informed regarding said provisions. Each of the parties hereto further acknowledges that the provisions of Section 9 and Section 10 fairly allocate the risks in light of the ability of the parties to investigate the Company, its affairs and its business in order to assure that adequate disclosure has been made in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, each free writing prospectus and the Prospectus (and any amendments and supplements to the foregoing), as contemplated by the Securities Act and the Exchange Act.

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

[Signature page follows]

Very truly yours,

SORRENTO THERAPEUTICS, INC.

By: /s/ Henry Ji, Ph.D.:
Name: Henry Ji, Ph.D.
Title: President & Chief Executive Officer

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

CANTOR FITZGERALD & CO.

By: /s/ Shawn Matthews
Name: Shawn Matthews
Title: President & CEO

Underwriters	Number of Firm Shares to be Purchased
Cantor Fitzgerald & Co.	14,883,811
FBR Capital Markets & Co.	4,961,271
Oppenheimer & Co. Inc.	1,050,001
Aegis Capital Corp.	1,050,001
Joseph Gunnar & Co., LLC	560,000
H.C. Wainwright & Co. LLC	560,000
Roth Capital Partners, LLC	560,000
Total	23,625,084

Underwriters	Number of Optional Shares to be purchased
Cantor Fitzgerald & Co.	2,657,822
FBR Capital Markets & Co.	885,941
Oppenheimer & Co. Inc.	-
Aegis Capital Corp.	-
Joseph Gunnar & Co., LLC	-
H.C. Wainwright & Co. LLC	-
Roth Capital Partners, LLC	-
Total	3,543,763

Free Writing Prospectuses Included in the Time of Sale Prospectus

None

Pricing Information

Firm Shares: 23,625,084

Optional Shares: 3,543,763

Price to Public: \$2.00

Underwriters' Discount: \$0.1429

Significant Subsidiaries

Ark Animal Health, Inc.

Concortis Biosystems, Corp.

LA Cell, Inc. *

Scilex Pharmaceuticals Inc. *

Scintilla Pharmaceuticals, Inc. *

Sorrento Biologics, Inc. *

TNK Therapeutics, Inc. *

* Entity is not a wholly-owned subsidiary of Sorrento Therapeutics, Inc.

Form of Lock-up Agreement

Cantor Fitzgerald & Co.
499 Park Avenue
New York, New York 10022
Attn: Equity Capital Markets

Re: Proposed Registered Follow-On Offering by Sorrento Therapeutics, Inc.

Ladies and Gentlemen:

The undersigned, a securityholder and/or an officer and/or a director of Sorrento Therapeutics, Inc., a Delaware corporation (the "Company"), understands that Cantor Fitzgerald & Co. ("CF&Co.") proposes to enter into an Underwriting Agreement (the "Underwriting Agreement") with the Company relating to the proposed registered follow-on offering (the "Offering") of shares of the Company's common stock, par value \$0.0001 per share (the "Common Stock"). The undersigned acknowledges that CF&Co. is relying on the representations and agreements of the undersigned contained in this lock-up agreement in conducting the Offering and, at a subsequent date, in entering into the Underwriting Agreement and other underwriting arrangements with the Company with respect to the Offering.

In recognition of the benefit that the Offering will confer upon the undersigned as a securityholder and/or officer and/or a director of the Company, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agrees that, during the period beginning on the date hereof and ending on the date that is ninety (90) days from the date of the Underwriting Agreement (the "Lock-Up Period"), the undersigned will not, without the prior written consent of CF&Co., which may withhold its consent in its sole discretion, directly or indirectly, (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant for the sale of, or otherwise dispose of or transfer any shares of Common Stock or any securities convertible into or exchangeable or exercisable for Common Stock, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition (collectively, the "Lock-Up Securities"), or make any demand for, or exercise any right with respect to the registration of any of the Lock-Up Securities, or the filing of any registration statement, prospectus or prospectus supplement (or an amendment or supplement thereto) in connection therewith, under the Securities Act of 1933, as amended, (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of the Lock-Up Securities, whether any such swap or transaction is to be settled by delivery of Common Stock or other securities, in cash or otherwise, or (iii) publicly announce the intention to do any of the foregoing.

Notwithstanding the foregoing, and subject to the conditions below, the undersigned may transfer the Lock-Up Securities pursuant to clauses (i) through (vii) below without the prior written consent of CF&Co., provided that (1) in the case of clauses (i) through (v) and (vii) below prior to any such transfer, CF&Co. receives a signed lock-up agreement, substantially in the form of this lock-up agreement, for the balance of the Lock-Up Period from each donee, trustee, distributee or transferee, as the case may be, (2) any such transfer shall not involve a disposition for value, (3) in the case of clauses (i) through (iii) below, such transfers are not required to be reported with the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and (4) the undersigned does not otherwise voluntarily effect any public filing or report regarding such transfers:

- (i) as a bona fide gift or gifts; or
- (ii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned (for purposes of this lock-up agreement, “immediate family” shall mean any relationship by blood, marriage or adoption, not more remote than first cousin); or
- (iii) pursuant to a qualified domestic order or in connection with a divorce settlement; or
- (iv) by will or intestate succession to the legal representative, heir, beneficiary or immediate family of the undersigned upon the death of the undersigned; or
- (v) to the undersigned’s direct or indirect affiliates; or

(vi) (a) to the Company as forfeitures to satisfy tax withholding obligations of the undersigned in connection with the vesting or exercise of equity awards pursuant to the Company’s equity incentive plan or outstanding warrants; provided that any shares of Common Stock acquired in connection with such vesting or exercise of equity awards or warrants described in this clause (a) shall be subject to the restrictions set forth in this lock-up agreement, (b) to the Company, pursuant to a net exercise or cashless exercise by the undersigned of outstanding equity awards pursuant to the Company’s equity incentive plan or outstanding warrants; provided that any shares of Common Stock acquired upon the net exercise or cashless exercise of equity awards described in this clause (b) shall be subject to the restrictions set forth in this lock-up agreement, or (c) pursuant to a bona fide third-party tender offer for all outstanding shares of the Company, merger, consolidation or other similar transaction made to all holders of the Company’s securities involving a Change of Control of the Company which is approved by the Company’s Board of Directors (including, without limitation, the entering into any lock-up, voting or similar agreement pursuant to which the undersigned may agree to transfer, sell, tender or otherwise dispose of common stock or other such securities in connection with such transaction, or vote any common stock or other such securities in favor of any such transaction); provided that in the event that such tender offer, merger, consolidation or other such transaction is not completed, such securities held by the undersigned shall remain subject to the provisions of this lock-up agreement; provided that, in the case of a transfer pursuant to clauses (a) or (b) above, no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made within 30 days after the date of the Purchase Agreement, and after such 30th day, if the undersigned is required to file a report under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of shares of Common Stock during the Lock-up Period, the undersigned shall include a statement in such report to the effect that the purpose of such transfer was either (1) to cover tax withholding obligations of the undersigned in connection with such vesting or exercise or (2) in connection with a cashless or net exercise of equity awards; or

(vii) cash exercise an option to purchase shares of Common Stock granted under any equity incentive plan or stock purchase plan of the Company; provided that any shares of Common Stock issued upon exercise of such options shall continue to be subject to the restrictions on transfer set forth in this lock-up agreement; or

(viii) establish a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of Common Stock, provided that (x) no sales under such plan are permitted during the Lock-Up Period and (y) the entry into such plan is not publicly disclosed, including in any filing under the Exchange Act, during the Lock-Up Period.

For the purposes of clause (vi), (a) the undersigned may only transfer the Lock-Up Securities if the transactions described in such clause are consummated and (b) a “Change of Control” means the transfer (whether by tender offer, merger, consolidation or other similar transaction), in one transaction or a series of related transactions, to a person or group of affiliated persons (other than the underwriters pursuant to the Offering), of shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock if, after such transfer, the stockholders of the Company immediately prior to such transfer do not own a majority of the outstanding voting securities of the Company (or the surviving entity).

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company’s transfer agent and registrar against the transfer of the Lock-Up Securities except in compliance with the foregoing restrictions.

With respect to the Offering only, the undersigned waives any registration rights relating to registration under the Securities Act of the offer and sale of any shares of Common Stock and/or any options or warrants or other rights to acquire Common Stock or any securities exchangeable or exercisable for or convertible into Common Stock, or to acquire other securities or rights ultimately exchangeable or exercisable for or convertible into Common Stock, owned either of record or beneficially by the undersigned, including any rights to receive notice of the Offering.

The undersigned confirms that the undersigned has not, directly or indirectly, taken any action designed to or that might reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale of the Common Stock. The undersigned will not take, directly or indirectly, any such action.

The undersigned represents and warrants that the undersigned has full power, capacity and authority to enter into this lock-up agreement. This lock-up agreement is irrevocable and will be binding on the undersigned and the successors, heirs, personal representatives and assigns of the undersigned.

This lock-up agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflict of laws principles thereof.

Whether or not the Offering occurs as currently contemplated or at all depends on market conditions and other factors. The Offering will only be made pursuant to the Underwriting Agreement, the terms of which are subject to negotiation between the Company and CF&CO.

This lock-up agreement shall automatically terminate, and the undersigned shall be released from its obligations hereunder, if any of the following occurs: (i) the Company advises CF&Co. in writing, prior to the execution of the Underwriting Agreement, that it has determined not to proceed with the Offering, (ii) the executed Underwriting Agreement is terminated prior to the closing of the Offering (other than the provisions thereof that survive termination), or (iii) the Underwriting Agreement is not executed by May 15, 2017.

[Signature Page Follows]

Very truly yours,

By: _____
Name: _____

PAUL HASTINGS

April 13, 2017

91966.00011

Sorrento Therapeutics, Inc.
9380 Judicial Drive
San Diego, CA 92121

Ladies and Gentlemen:

We have acted as counsel to Sorrento Therapeutics, Inc., a Delaware corporation (the “*Company*”), in connection with the preparation and filing with the Securities and Exchange Commission (the “*Commission*”) pursuant to Rule 424(b) of the rules and regulations of the Securities Act of 1933, as amended (the “*Act*”), of a prospectus supplement, dated April 12, 2017 (the “*Prospectus Supplement*”), to the Company’s Registration Statement on Form S-3 (File No. 333-199849) originally filed with the Commission under the Act on November 4, 2014 (the “*Registration Statement*”), and the related prospectus, dated December 3, 2014, included in the Registration Statement at the time it originally became effective (the “*Base Prospectus*” and, together with the Prospectus Supplement, the “*Prospectus*”), relating to the offering by the Company of up to 23,625,084 shares (the “*Shares*”) of the Company’s common stock, par value \$0.0001 per share, and up to an additional 3,543,763 Shares subject to an over-allotment option granted to the underwriters of the offering. The Shares are being sold to the several underwriters named in, and pursuant to, an underwriting agreement between the Company and Cantor Fitzgerald & Co., as the representative of such underwriters, dated as of April 13, 2017 (the “*Underwriting Agreement*”).

In connection with this opinion, we have examined and relied upon the Registration Statement, the Prospectus, the Underwriting Agreement, the Company’s Restated Certificate of Incorporation, as amended, and the Company’s Bylaws, each as currently in effect, and the originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not independently verified such matters. We have assumed the genuineness and authenticity of all documents submitted to us as originals, and the conformity to originals of all documents submitted to us as copies thereof.

Our opinion is limited to the matters stated herein and no opinion is implied or may be inferred beyond the matters expressly stated. Our opinion herein is expressed solely with respect to the federal laws of the United States and the General Corporation Law of the State of Delaware. We are not rendering any opinion as to compliance with any federal or state antifraud law, rule or regulation relating to securities, or to the sale or issuance thereof. Our opinion is based on these laws as in effect on the date hereof, and we disclaim any obligation to advise you of facts, circumstances, events or developments which hereafter may be brought to our attention and which may alter, affect or modify the opinion expressed herein. We express no opinion as to whether the laws of any particular jurisdiction other than those identified above are applicable to the subject matter hereof.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when issued and sold against payment therefor in accordance with the Underwriting Agreement, will be validly issued, fully paid and nonassessable.

Paul Hastings LLP | 1117 S. California Avenue | Palo Alto, California 94304
t: +1.650.320.1800 | www.paulhastings.com

We consent to the reference to our firm under the caption “Legal Matters” in the Prospectus included in the Registration Statement and to the filing of this opinion as an exhibit to a Current Report of the Company on Form 8-K.

Very truly yours,

/s/ Paul Hastings LLP



Sorrento Announces Pricing of Public Offering of Common Stock

SAN DIEGO, April 13, 2017 -- Sorrento Therapeutics, Inc. (NASDAQ: SRNE) ("Sorrento"), an antibody-centric, clinical-stage biopharmaceutical company developing new treatments for cancer and other unmet medical needs, today announced the pricing of its public offering of 23,625,084 shares of its common stock at a price to the public of \$2.00 per share. In addition, Sorrento has granted the underwriters an option exercisable, in whole or in part, in the sole discretion of the underwriters, to purchase up to 3,543,763 additional shares, for a period of up to 30 days. All of the shares will be offered and sold by Sorrento. Henry Ji, Ph.D., Sorrento's President and Chief Executive Officer and a member of Sorrento's board of directors, is purchasing shares in the offering.

Cantor Fitzgerald & Co. is acting as the lead book-running manager for the offering. FBR Capital Markets & Co. is also acting as a joint book-running manager. Oppenheimer & Co. and Aegis Capital Corp. are acting as co-lead managers and Joseph Gunnar & Co., Rodman & Renshaw and Roth Capital Partners are acting as co-managers.

The public offering will be made pursuant to a shelf registration statement on Form S-3 (File No. 333-199849) previously filed with and declared effective by the Securities and Exchange Commission (the "SEC") on December 3, 2014. The securities may be offered only by means of a prospectus. A preliminary prospectus supplement and the accompanying prospectus relating to and describing the terms of the offering have been filed with the SEC and are available on the SEC's website at www.sec.gov. Copies of the preliminary prospectus supplement and the accompanying prospectus, and when available, copies of the final prospectus supplement and the accompanying prospectus relating to the offering may be obtained from Cantor Fitzgerald & Co., Attention: Capital Markets, 499 Park Ave., 6th Floor, New York, New York 10022, or by telephone at 212-829-7122, or by e-mail at prospectus@cantor.com.

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

About Sorrento Therapeutics, Inc.

Sorrento is an antibody-centric, clinical stage biopharmaceutical company developing new treatments for immuno-oncology, inflammation and autoimmune diseases. Sorrento's lead product candidates include immunotherapies focused on the treatment of both solid tumors and hematological malignancies, as well as late stage pain products.

Forward-Looking Statements

This press release contains forward-looking statements related to Sorrento Therapeutics, Inc. and its subsidiaries under the safe harbor provisions of Section 21E of the Private Securities Litigation Reform Act of 1995 and subject to risks and uncertainties that could cause actual results to differ materially from those projected. Forward-looking statements include statements regarding the proposed underwritten public offering and other matters that are described in Sorrento's most recent periodic reports filed with the SEC, including Sorrento's Annual Report on Form 10-K for the year ended December 31, 2016, as amended, and the preliminary prospectus supplement related to the proposed offering filed with the SEC on or about the date hereof, including the risk factors set forth in those filings. Investors are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this release and we undertake no obligation to update any forward-looking statement in this press release except as required by law.

Sorrento® and the Sorrento logo are registered trademarks of Sorrento Therapeutics, Inc.

All other trademarks and trade names are the property of their respective owners.

Logo - <http://photos.prnewswire.com/prnh/20150105/167173LOGO>

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