

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

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**FORM 8-K**

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**CURRENT REPORT**

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

**Date of Report (Date of earliest event reported): January 28, 2020**

**Concert Pharmaceuticals, Inc.**

(Exact name of registrant as specified in charter)

Delaware  
(State or other jurisdiction  
of incorporation)

001-36310  
(Commission  
File Number)

20-4839882  
(IRS Employer  
Identification No.)

65 Hayden Avenue, Suite 3000N  
Lexington, MA  
(Address of principal executive offices)

02421  
(Zip Code)

**Registrant's telephone number, including area code: (781) 860-0045**

(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 (*see* General Instruction A.2. below):

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

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

Title of each class  
Common stock, \$0.001 par value per share

Trading symbol(s)  
CNCE

Name of each exchange on which registered  
Nasdaq Global Market

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Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR 230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR 240.12b-2).

Emerging growth company

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

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**Item 1.01. Entry into a Material Definitive Agreement.**

On January 28, 2020, Concert Pharmaceuticals, Inc. (the “Company”) entered into an underwriting agreement (the “Underwriting Agreement”) with Jefferies LLC, as representative of the several underwriters named therein (collectively, the “Underwriters”), relating to an underwritten public offering of 4,752,420 shares (the “Shares”) of the Company’s common stock, \$0.001 par value per share (the “Common Stock”), and pre-funded warrants to purchase 1,800,000 shares of Common Stock (the “Pre-Funded Warrants”). All of the Shares and Pre-Funded Warrants are being sold by the Company. The offering price of the Shares to the public is \$9.92 per share and the offering price of the Pre-Funded Warrants to the public is \$9.919 per share. Under the terms of the Underwriting Agreement, the Company has granted the Underwriters an option, exercisable for 30 days, to purchase up to an additional 982,863 shares of Common Stock at the public offering price less the underwriting discounts and commissions.

The Pre-Funded Warrants have an initial exercise price of \$0.001 per share and are exercisable at any time after their original issuance at the option of each holder, in such holder’s discretion, by (i) payment in full in immediately available funds for the number of shares of Common Stock purchased upon such exercise or (ii) a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of Common Stock determined according to the formula set forth in the Pre-Funded Warrant.

The Pre-Funded Warrants may not be exercised if, upon giving effect to such exercise, (i) the aggregate number of shares of Common Stock beneficially owned by the holder (together with its affiliates) would exceed 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to the exercise, or (ii) the combined voting power of the Company’s securities beneficially owned by the holder (together with its affiliates) would exceed 9.99% of the combined voting power of all of the Company’s securities then outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Pre-Funded Warrants. However, any holder may increase or decrease such percentage, but not in excess of 19.99%, upon at least 61 days’ prior notice from the holder to the Company.

In the event of certain fundamental transactions, the holders of the Pre-Funded Warrants will be entitled to receive upon exercise of the Pre-Funded Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Pre-Funded Warrants immediately prior to such fundamental transaction without regard to any limitations on exercise contained in the Pre-Funded Warrants.

The Underwriting Agreement contains customary representations, warranties and agreements by the Company, customary conditions to closing, indemnification obligations of the Company and the Underwriters, including for liabilities under the Securities Act of 1933, as amended, other obligations of the parties and termination provisions.

The offering was made pursuant to a prospectus supplement dated January 28, 2020 and an accompanying base prospectus dated March 7, 2018 that form a part of the registration statement on Form S-3 (File No. 333-223334) that the Company filed with the Securities and Exchange

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Commission on March 1, 2018, which became effective on March 7, 2018. The closing of the offering is expected to take place on January 30, 2020, subject to customary closing conditions.

A copy of the Underwriting Agreement is attached as Exhibit 1.1 hereto and is incorporated herein by reference. A copy of the Form of Pre-Funded Warrants is attached as Exhibit 4.1 hereto and is incorporated herein by reference. The foregoing description of the material terms of the Underwriting Agreement and Pre-Funded Warrants does not purport to be complete and is qualified in its entirety by reference to such exhibits.

A copy of the legal opinion and consent of Goodwin Procter LLP, counsel to the Company, is attached as Exhibit 5.1 hereto.

#### **Item 8.01. Other Events.**

The Company issued a press release on January 28, 2020, announcing the pricing of the underwritten public offering. The press release is attached as Exhibit 99.1, and the information contained therein is incorporated herein by reference.

#### **Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits

<b>Exhibit No.</b>	<b>Description</b>
<a href="#"><u>1.1</u></a>	<a href="#"><u>Underwriting Agreement, dated as of January 28, 2020, by and between the Company and Jefferies LLC, as representative of the several underwriters named therein</u></a>
<a href="#"><u>4.1</u></a>	<a href="#"><u>Form of Pre-Funded Warrant</u></a>
<a href="#"><u>5.1</u></a>	<a href="#"><u>Opinion of Goodwin Procter LLP</u></a>
<a href="#"><u>23.1</u></a>	<a href="#"><u>Consent of Goodwin Procter LLP (included in Exhibit 5.1)</u></a>
<a href="#"><u>99.1</u></a>	<a href="#"><u>Press Release of the Company, dated January 28, 2020</u></a>

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**SIGNATURE**

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.

CONCERT PHARMACEUTICALS, INC.

Date: January 28, 2020

By: /s/ Jeffrey A. Munsie  
Jeffrey A. Munsie  
Chief Legal Officer

4,752,420 Shares

Pre-Funded Warrants to Purchase 1,800,000 Shares

Concert Pharmaceuticals, Inc.

UNDERWRITING AGREEMENT

January 28, 2020

JEFFERIES LLC  
As Representative of the several Underwriters  
c/o JEFFERIES LLC  
520 Madison Avenue  
New York, New York 10022

Ladies and Gentlemen:

**Introductory.** Concert Pharmaceuticals, Inc., a Delaware corporation (the “**Company**”), proposes to issue and sell to the several underwriters named in Schedule A (the “**Underwriters**”) (i) an aggregate of 4,752,420 shares of its common stock, par value \$0.001 per share of the Company (the “**Shares**”) and (ii) pre-funded warrants to purchase up to 1,800,000 Shares at an exercise price equal to \$0.001 per share (the “**Pre-Funded Warrants**”). The 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 982,863 Shares as provided in Section 2. The additional Shares to be sold by the Company pursuant to such option are collectively 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**.” The Offered Shares and the Pre-Funded Warrants are herein referred to as the “**Securities**”. The Shares issuable upon exercise of the Pre-Funded Warrants are herein referred to as the “**Warrant Shares**”. Jefferies LLC (“**Jefferies**”) has agreed to act as Representative of the several Underwriters (in such capacity, the “**Representative**”) in connection with the offering and sale of the Securities. To the extent there are no additional underwriters listed on Schedule A, the term “Representative” as used herein shall mean you, as Underwriters, 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 shelf registration statement on Form S-3, File No. 333-223334, including a base prospectus (the “**Base Prospectus**”) to be used in connection with the public offering and sale of the Securities. 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 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 Securities 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 January 27, 2020 describing the Securities and the offering thereof (the “**Preliminary Prospectus Supplement**”), together with the Base Prospectus, is

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called the “**Preliminary Prospectus**,” and the Preliminary Prospectus and any other prospectus supplement to the Base Prospectus in preliminary form that describes the Securities 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 Securities 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 Securities 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 8:30 a.m. (New York City time) on January 28, 2020. 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, as amended or supplemented immediately prior to the Applicable Time, together with the free writing prospectuses, if any, identified in Schedule B, and the pricing information set forth in Schedule C 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 Securities contemplated hereby that is a “written communication” (as defined in Rule 405 under the Securities Act). The Company qualified as an emerging growth company (“**EGC**”) until December 31, 2019 and the Company ceased being an EGC on January 1, 2020 as a result of December 31, 2019 being the last day of the fiscal year following the fifth anniversary of the Company’s initial public offering. As used herein, “**Section 5(d) Written Communication**” means each written communication (within the meaning of Rule 405 under the Securities Act) that is made in reliance on Section 5(d) of the Securities Act by the Company or any person authorized to act on behalf of the Company prior to January 1, 2020 to one or more potential investors that are qualified institutional buyers (“**QIBs**”) and/or institutions that are accredited investors (“**IAIs**”), as such terms are respectively defined in Rule 144A and Rule 501(a) under the Securities Act, to determine whether such investors might have an interest in the offering of the Securities; “**Section 5(d) Oral Communication**” means each oral communication, if any, made in reliance on Section 5(d) of the Securities Act by the Company or any person authorized to act on behalf of the Company prior to January 1, 2020 made to one or more QIBs and/or one or more IAIs to determine whether such investors might have an interest in the offering of the Securities; “**Rule 163B Written Communication**” means each written communication (within the meaning of Rule 405 under the Securities Act) that is made in reliance on Rule 163B under the Securities Act by the Company or any person authorized to act on behalf of the Company to one or more potential investors that are QIBs and/or IAIs, to determine whether such investors might have an interest in the offering of the Securities; “**Rule 163B Oral Communication**” means each oral communication, if any, made in reliance on Rule 163B under the Securities Act by the Company or any person authorized to act on behalf of the Company made to one or more QIBs and/or one or more IAIs to determine whether such investors might have an interest in the offering of the Securities; “**Marketing Materials**” means any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Securities, including any roadshow or investor presentations made to investors by the Company (whether in person or electronically); and “**Permitted Rule 163B Communication**” means the Rule 163B Written Communication(s) and Marketing Materials listed on Schedule D attached hereto.

All references in this Agreement to 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 shall include the documents incorporated or deemed to be incorporated by reference therein. 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 Rule 462(b) 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 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 (i) 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, 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 Securities as contemplated by Section 3(n) of this Agreement.

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

**Section 1. Representations and Warranties of the Company.**

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 best knowledge of the Company, are contemplated or threatened by the Commission. At the time the Company’s Annual Report on Form 10-K for the year ended December 31, 2018 (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 Company meets the requirements for use of Form S-3 under the Securities Act as specified in the Financial Industry Regulatory Authority, Inc. (“**FINRA**”) Conduct Rule 5110(b)(7)(C)(i). 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 Securities. 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) below. 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 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 Securities 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 Securities 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 B, and electronic road shows, if any, furnished to you before first use, the Company has not prepared, used or referred to, and will not, without your prior written consent, 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 Securities, the Company has not distributed and will not distribute any offering material in connection with the offering and sale of the Securities other than the Registration Statement, the Time of Sale Prospectus, the Prospectus or any free writing prospectus reviewed and consented to by the Representative, the free writing prospectuses, if any, identified on Schedule B hereto and any Permitted Rule 163B Communications.

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

(f) **Authorization of the Securities.** 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. The Pre-Funded Warrants to be sold by the Company hereunder have been duly authorized by the Company and, when executed and delivered by the Company as provided herein, will be valid and binding agreements of the Company, enforceable against the Company in accordance with their terms, except as the enforcement thereof may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or affecting the rights and remedies of creditors or by general equitable principles. The Warrant Shares have been duly authorized and validly reserved for issuance upon exercise of the Pre-Funded Warrants in a number sufficient to meet the current exercise requirements and, when issued and delivered upon exercise of the Pre-Funded Warrants in accordance therewith, will be validly issued, fully paid and nonassessable and will conform to the descriptions thereof in the Registration Statement, the Pricing Disclosure Package and the Prospectus; and the issuance of the Warrant Shares is not subject to any preemptive or similar rights.

(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.

(h) **No Material Adverse Change.** 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 change, or any development that could be expected to result in a material adverse change in the condition, financial or otherwise, or in the earnings, business, properties, operations, assets, liabilities or prospects, whether or not arising from transactions in the ordinary course of business, of the Company and the Subsidiaries (as defined below), considered as one entity (any such change being referred to herein as a “**Material Adverse Change**”); (ii) the Company and the Subsidiaries, considered as one entity, 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 and the Subsidiaries, considered as one entity, or has entered into any transactions not in the ordinary course of business; and (iii) there has not been any material decrease in the capital stock or any material increase in any short-term or long-term indebtedness of the Company or the Subsidiaries and there has been no dividend or distribution of any kind declared, paid or made by the Company or, except for dividends paid to the Company or other Subsidiaries, by any of the Subsidiaries on any class of capital stock, or any repurchase or redemption by the Company or any of the Subsidiaries of any class of capital stock.

(i) **Independent Accountants.** Ernst & Young LLP, whose report on the consolidated financial statements of the Company is filed with the Commission as part of the Annual Report that is incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus, are, and during the periods covered by the report, were an independent registered public accounting firm within the meaning of the Securities Act and the Public Company Accounting Oversight Board.

**(j) Financial Statements.** The consolidated financial statements of the Company included or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus, together with the related notes and schedules, present fairly the consolidated financial position of the Company and the Subsidiaries as of the dates indicated and the consolidated results of operations, cash flows and changes in stockholders' equity of the Company and the Subsidiaries for the periods specified and have been prepared in compliance in all material respects with the requirements of the Securities Act and Exchange Act and in conformity with U.S. generally accepted accounting principles applied on a consistent basis during the periods involved, except as otherwise disclosed therein, and, in the case of unaudited, interim financial statements, subject to normal year end audit adjustments and the exclusion of certain footnotes; all pro forma financial statements or data included or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus comply in all material respects with the requirements of the Securities Act and the Exchange Act, to the extent applicable, and the assumptions used in the preparation of such pro forma financial statements and data are reasonable, the pro forma adjustments used therein are appropriate to give effect to the transactions or circumstances described therein and the pro forma adjustments have been properly applied to the historical amounts in the compilation of those statements and data; the other financial and statistical data contained or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus are accurately and fairly presented in all material respects and prepared on a basis consistent with the financial statements and books and records of the Company; there are no financial statements (historical or pro forma) that are required to be included or incorporated by reference in the Registration Statement, the Time of Sale Prospectus or the Prospectus that are not included as required; and the Company and the Subsidiaries do not have any material liabilities or obligations, direct or contingent (including any off-balance sheet obligations), not described in the Registration Statement, the Time of Sale Prospectus and the Prospectus. The interactive data in 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.

**(k) Company's Accounting System.** The Company has established and maintains a system of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles 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 existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

**(l) Disclosure Controls and Procedures; Deficiencies in or Changes to Internal Control Over Financial Reporting .** The Company has established and maintains "disclosure controls and procedures" (as such term is defined in Rules 13a-15 and 15d-15 under the Exchange Act) and "internal control over financial reporting" (as such term is defined in Rules 13a-15 and 15d-15 under the Exchange Act); such disclosure controls and procedures are designed to ensure that material information relating to the Company, including the Subsidiaries, is made known to the Company's Chief Executive Officer and its Chief Financial Officer by others within the Company and the Subsidiaries (as defined below), and such disclosure controls and procedures are effective to perform the functions for which they were established; the Company's independent registered public accountants and the Audit Committee of the Board of Directors of the Company have been advised of: (i) all significant deficiencies, if any, in the design or operation of internal controls which could adversely affect the Company's ability to record, process, summarize and report financial data; and (ii) all fraud, if any, whether or not material, that involves management or other employees who have a role in the Company's internal controls; all "significant

deficiencies” and “material weaknesses” (as such terms are defined in Rule 1-02(a)(4) of Regulation S-X under the Securities Act) of the Company, if any, have been identified to the Company’s independent registered public accounting firm and are disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus; since the date of the most recent evaluation of such disclosure controls and procedures and internal controls, there have been no significant changes in internal controls or in other factors that could significantly affect internal controls, including any corrective actions with regard to significant deficiencies and material weaknesses; and the Company has taken all necessary actions to ensure that, upon and at all times after the filing of the Registration Statement, the principal executive officers (or their equivalents) and principal financial officers (or their equivalents) of the Company have made all certifications required by the Sarbanes-Oxley Act of 2002 (the “**Sarbanes-Oxley Act**”) and any related rules and regulations promulgated by the Commission, and the statements contained in each such certification are complete and correct; the Company and the Company’s directors and officers, in their capacities as such, are each, in compliance in all material respects with the applicable provisions of the Sarbanes-Oxley Act and the rules and regulations promulgated thereunder.

**(m) Incorporation and 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, with full corporate power and authority to own, lease and operate its properties and conduct its business as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus, to execute and deliver this Agreement and to issue, sell and deliver the Offered Shares and Pre-Funded Warrants as contemplated herein.

**(n) Foreign Qualifications.** The Company is duly qualified to do business as a foreign corporation and is in good standing in the Commonwealth of Massachusetts, which is the only jurisdiction where the ownership or leasing of its properties or the conduct of its business requires such qualification, except where the failure to be so qualified and in good standing does not, individually or in the aggregate, either (i) have a Material Adverse Effect (as defined below), (ii) prevent or materially interfere with consummation of the transactions contemplated hereby or (iii) result in the delisting of the Shares from The Nasdaq Global Market (the “**Nasdaq**”).

**(o) Subsidiaries.** The Company has no subsidiaries (as defined under the Securities Act) other than Concert Pharmaceuticals Securities Corp., Concert Pharma Ireland Limited and Concert Pharma U.K. Ltd (the “**Subsidiaries**”) and no “significant subsidiaries” (as such term is defined in Rule 1-02 of Regulation S-X) other than Concert Pharmaceuticals Securities Corp.; the Company owns all of the issued and outstanding capital stock of the Subsidiaries; other than the capital stock of the Subsidiaries and securities owned by the Company in connection with its Option and License Agreement with Promet Therapeutics, LLC dated October 4, 2017 as amended, the Company does not own, directly or indirectly, any shares of stock or any other equity interests or long-term debt securities of any corporation, firm, partnership, joint venture, association or other entity; complete and correct copies of the charters and the bylaws of the Company and the Subsidiaries and all amendments thereto have been made available to you, and no changes therein will be made on or after the date hereof through and including the time of purchase or, if later, any additional time of purchase; the Subsidiaries have been duly incorporated and are validly existing as a corporation in good standing under the laws of their respective jurisdictions, with full corporate power and authority to own, lease and operate its properties and to conduct their businesses as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus; the Subsidiaries are duly qualified to do business as a foreign corporation and are in good standing in each jurisdiction where the ownership or leasing of its properties or the conduct of their businesses requires such qualification, except where the failure to be so qualified and in good standing would not, individually or in the aggregate, have a Material Adverse Effect; all of the outstanding shares of capital stock of the

Subsidiaries have been duly authorized and validly issued, are fully paid and non-assessable, have been issued in compliance with all applicable securities laws, were not issued in violation of any preemptive right, resale right, right of first refusal or similar right and are owned by the Company subject to no security interest, other encumbrance or adverse claims; and no options, warrants or other rights to purchase, agreements or other obligations to issue or other rights to convert any obligation into shares of capital stock or ownership interests in the Subsidiaries are outstanding.

**(p) Capitalization and Other Capital Stock Matters.** As of the date of this Agreement, the Company has an authorized and outstanding capitalization as set forth in the sections of the Registration Statement, the Time of Sale Prospectus and the Prospectus entitled “Capitalization,” and “Description of Capital Stock” (and any similar sections or information, if any, contained in any free writing prospectus), and, as of the time of purchase and any additional time of purchase, as the case may be, the Company shall have an authorized and outstanding capitalization as set forth in the sections of the Registration Statement, the Time of Sale Prospectus and the Prospectus entitled “Capitalization,” and “Description of Capital Stock” (and any similar sections or information, if any, contained in any free writing prospectus) (subject, in each case, to the issuance of shares of common stock upon exercise of stock options and warrants disclosed as outstanding in the Registration Statement, the Time of Sale Prospectus and the Prospectus and the grant of awards under existing equity incentive plans described in the Registration Statement, the Time of Sale Prospectus and the Prospectus); all of the issued and outstanding shares of capital stock, including the common stock, of the Company have been duly authorized and validly issued and are fully paid and non-assessable, have been issued in compliance with all applicable securities laws and were not issued in violation of any preemptive right, resale right, right of first refusal or similar right; and the Offered Shares and Warrant Shares are duly listed, and admitted and authorized for trading, subject to official notice of issuance and evidence of satisfactory distribution, on Nasdaq;

**(q) Stock Exchange Listing.** The Shares are registered pursuant to Section 12(b) or 12(g) of the Exchange Act and are listed on 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 Nasdaq, nor has the Company received any notification that the Commission or Nasdaq is contemplating terminating such registration or listing.

**(r) No Default.** Neither the Company nor the Subsidiaries are in breach or violation of or in default under (nor has any event occurred which, with notice, lapse of time or both, would result in any breach or violation of, constitute a default under or give the holder of any indebtedness (or a person acting on such holder’s behalf) the right to require the repurchase, redemption or repayment of all or a part of such indebtedness under) (A) its respective charter or bylaws, or (B) any indenture, mortgage, deed of trust, bank loan or credit agreement or other evidence of indebtedness, or any license, lease, contract or other agreement or instrument to which it is a party or by which it or any of its properties may be bound or affected, or (C) any applicable federal, state, local or foreign law, regulation or rule, or (D) any applicable rule or regulation of any self-regulatory organization or other non-governmental regulatory authority (including, without limitation, the rules and regulations of Nasdaq), or (E) any decree, judgment or order applicable to it or any of its properties, except in the case of the foregoing clauses (B), (C), (D) and (E), for any such breaches, violations, defaults or events as could not be expected, individually or in the aggregate, to have a material adverse effect on the condition (financial or other), earnings, business, properties, operations, assets, liabilities or prospects of the Company and the Subsidiaries, considered as one entity (a “**Material Adverse Effect**”).

**(s) Non-Contravention.** The execution, delivery and performance of this Agreement, the issuance and sale of the Securities and, upon exercise of the Pre-Funded Warrants, the issuance of the

Warrant Shares, and the consummation of the transactions contemplated hereby will not conflict with, result in any breach or violation of or constitute a default under (nor constitute any event which, with notice, lapse of time or both, would result in any breach or violation of, constitute a default under or give the holder of any indebtedness (or a person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a part of such indebtedness under) (or result in the creation or imposition of a lien, charge or encumbrance on any property or assets of the Company or the Subsidiaries pursuant to) (A) the charter or bylaws of the Company or the Subsidiaries, or (B) any indenture, mortgage, deed of trust, bank loan or credit agreement or other evidence of indebtedness, or any license, lease, contract or other agreement or instrument to which the Company or the Subsidiaries are a party or by which either of them or any of their respective properties may be bound or affected, or (C) any applicable federal, state, local or foreign law, regulation or rule, or (D) any applicable rule or regulation of any self-regulatory organization or other non-governmental regulatory authority (including, without limitation, the rules and regulations of Nasdaq), or (E) any decree, judgment or order applicable to the Company or the Subsidiaries or any of their respective properties, except in the case of the foregoing clauses (B), (C), (D) and (E), for any such breaches, violations, defaults or events that would not, individually or in the aggregate, have a Material Adverse Effect.

**(t) No Further Authorizations or Approvals Required.** No approval, authorization, consent or order of or filing with any federal, state, local or foreign governmental or regulatory commission, board, body, authority or agency, or of or with any self-regulatory organization or other non-governmental regulatory authority (including, without limitation, Nasdaq) having jurisdiction over the Company, or approval of the stockholders of the Company, is required in connection with the issuance and sale of the Securities and, upon exercise of the Pre-Funded Warrants, the issuance of the Warrant Shares, or the consummation by the Company of the transactions contemplated hereby, other than (i) the registration of the Securities under the Securities Act, which has been effected (or, with respect to any registration statement to be filed hereunder pursuant to Rule 462(b) under the Securities Act, will be effected in accordance herewith); (ii) any necessary qualification under the securities or blue sky laws of the various jurisdictions in which the Securities are being offered by the Underwriters; (iii) under the Conduct Rules of FINRA; (iv) any listing applications and related consents or any notices required by Nasdaq in the ordinary course of the offering of the Securities; (v) filings with the Commission pursuant to Rule 424(b) under the Securities Act; (vi) filings with the Commission on Form 8-K with respect to the Underwriting Agreement and Exhibit 5 opinion; or (vii) except as otherwise have already been obtained or made as of the date of this Agreement.

**(u) No Material Actions or Proceedings.** Except as disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, there are no actions, suits, claims, investigations or proceedings pending or, to the Company's knowledge, threatened or contemplated to which the Company or the Subsidiaries or any of their respective directors or officers is or would be a party or of which any of their respective properties is or would be subject at law or in equity, before or by any federal, state, local or foreign governmental or regulatory commission, board, body, authority or agency, or before or by any self-regulatory organization or other non-governmental regulatory authority (including, without limitation, Nasdaq), except any such action, suit, claim, investigation or proceeding which, if resolved adversely to the Company or the Subsidiaries, would not, individually or in the aggregate, have a Material Adverse Effect.

**(v) Intellectual Property Rights.** Except as disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, (i) the Company and the Subsidiaries own, or have obtained valid and enforceable licenses for, or other rights to use, the inventions, patent applications, patents, trademarks (both registered and unregistered), tradenames, service names, copyrights, trade secrets and other

proprietary information described in the Registration Statement, the Time of Sale Prospectus and the Prospectus as being owned or licensed by them or which are necessary for the conduct of their collective business as currently conducted or as currently proposed to be conducted (including the commercialization of products or services described in the Registration Statement, the Time of Sale Prospectus and the Prospectus as under development), except where the failure to own, license or have such rights would not, individually or in the aggregate, have a Material Adverse Effect (collectively, “**Intellectual Property**”), except as enforceability may be limited by bankruptcy, insolvency or similar laws affecting the rights of creditors generally, and general equitable principles; (ii) there are no third parties who have, or, to the Company’s knowledge, will be able to establish, rights to use any Intellectual Property that is owned by the Company, other than any co-owner of any patent or patent application constituting Intellectual Property who is listed as such on the records of the U.S. Patent and Trademark Office (the “**PTO**”), and, to the Company’s knowledge, no third party has any ownership right in or to any Intellectual Property in any field of use that is exclusively licensed to the Company, except for, and to the extent of, the ownership rights of the owners of the Intellectual Property which the Registration Statement, the Time of Sale Prospectus and the Prospectus disclose is licensed to the Company; (iii) to the Company’s knowledge, there is no infringement, misappropriation or other violation by any third parties of any Intellectual Property; (iv) there is no pending or, to the Company’s knowledge, threatened action, suit, proceeding or claim by others challenging the Company’s rights in or to any Intellectual Property; (v) the Company has not received any notice from, and there is no pending or, to the Company’s knowledge, threatened action, suit, proceeding or claim by others challenging the validity, enforceability or scope of any Intellectual Property; (vi) the Company has not received any notice from, and there is no pending or, to the Company’s knowledge, threatened action, suit, proceeding or claim by others that the Company or the Subsidiaries infringe or otherwise violate, or would, upon the commercialization of any product or service described in the Registration Statement, the Time of Sale Prospectus and the Prospectus as under development, infringe or violate, any patent, trademark, tradename, service name, copyright, trade secret or other proprietary rights of others; (vii) the Company and the Subsidiaries have complied in all material respects with the applicable terms of each agreement pursuant to which Intellectual Property has been licensed to the Company or the Subsidiaries, and all such agreements are in full force and effect; (viii) to the Company’s knowledge, except as disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, or as would not have a Material Adverse Effect, there is no patent or patent application that contains claims that interfere with the issued or pending claims of any of the Intellectual Property or that challenges the validity, enforceability or scope of any of the Intellectual Property; (ix) there is no prior art of which the Company is aware that to the Company’s knowledge would render any of the issued or pending claims of any of the Intellectual Property invalid or otherwise unpatentable; (x) to the Company’s knowledge, the product candidates described in the Registration Statement, the Time of Sale Prospectus and the Prospectus as under development by the Company or the Subsidiaries fall within the scope of the claims of one or more patents or patent applications owned by, or exclusively licensed to, the Company or the Subsidiaries; (xi) all patents and patent applications owned by the Company have been duly and properly filed and maintained and the Company has complied and, to the Company’s knowledge, each of its licensors has complied with its duty of candor and disclosure to the PTO with respect to all patent applications owned or exclusively licensed by or to the Company and included in the Intellectual Property and filed with the PTO; (xii) the Company has taken commercially reasonable steps to secure its interest in the Intellectual Property, including, in the case of Intellectual Property that is owned by the Company, obtaining assignments from its employees, consultants and contractors pursuant to written agreements containing present tense assignments of all Intellectual Property created by such employees, consultants and contractors; (xiii) the Company has taken reasonable steps in accordance with normal industry practice to maintain the confidentiality of all non-published Intellectual Property the value of which to the Company is contingent upon maintaining the confidentiality thereof, and no such Intellectual Property has been disclosed other than to employees, representatives, independent contractors, collaborators, licensors,

licensees, agents and advisors of the Company, all of whom are bound by written obligations to maintain the confidentiality thereof; and (xiv) the Company is not a party to or bound by any options, licenses or agreements with respect to the Intellectual Property of any other person or entity that are required to be described in the Registration Statement, the Time of Sale Prospectus and the Prospectus that are not so described therein.

**(w) *All Necessary Permits, etc.*** The Company and the Subsidiaries possess such valid and current certificates, authorizations or permits required by state, federal or foreign regulatory agencies or bodies to conduct their respective businesses as currently conducted and as described in the Registration Statement, the Time of Sale Prospectus or the Prospectus (“**Permits**”), except to the extent that failure to so possess such valid and current certificates, authorizations or permits would not, individually or in the aggregate, have a Material Adverse Effect. Neither the Company nor any of the Subsidiaries is in violation of, or in default under, any of the Permits or has received any notice of proceedings relating to the revocation or modification of, or non-compliance with, any such certificate, authorization or permit, except for such violations, defaults or proceedings, if resolved unfavorably, would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect.

**(x) *Title to Properties.*** Each of the Company and the Subsidiaries has good and marketable title to all personal property described in the Registration Statement, the Time of Sale Prospectus and the Prospectus as being owned by it, free and clear of all liens, claims, security interests or other encumbrances, except those that do not materially interfere with the use or proposed use of such property by the Company or the Subsidiaries, respectively, or as would not materially or adversely affect the value of such property; neither the Company nor the Subsidiaries owns any real property; all the real property described in the Registration Statement, the Time of Sale Prospectus and the Prospectus as being held under lease by the Company or the Subsidiaries is held thereby under valid, subsisting and enforceable leases.

**(y) *Tax Law Compliance.*** All tax returns required to be filed by the Company or the Subsidiaries have been timely filed (within any applicable time limit extensions permitted by the relevant tax authority), and all taxes and other assessments of a similar nature (whether imposed directly or through withholding) including any interest, additions to tax or penalties applicable thereto due or claimed to be due from the Company or the Subsidiaries have been timely paid, other than those being contested in good faith and for which adequate reserves have been provided, except to the extent failure to file any such returns or make such payments would not, individually or in the aggregate, have a Material Adverse Effect.

**(z) *Insurance.*** Except as disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, the Company maintains insurance covering the properties, operations, personnel and businesses of the Company and the Subsidiaries as the Company reasonably deems adequate to insure against such losses and risks in accordance with customary industry practice to protect the Company and the Subsidiaries and their respective businesses; all such insurance is fully in force on the date hereof and will be fully in force at the time of purchase and each additional time of purchase, if any; the Company has no reason to believe that it will not be able to renew any such insurance as and when such insurance expires or obtain similar coverage at a reasonable cost from similar insurers.

**(aa) *Unfair Labor Practices.*** Neither the Company nor the Subsidiaries are engaged in any unfair labor practice; except for matters which would not, individually or in the aggregate, have a Material Adverse Effect, (i) there is (A) no unfair labor practice complaint pending or, to the Company’s knowledge, threatened against the Company or the Subsidiaries before the National Labor Relations

Board, and no grievance or arbitration proceeding arising out of or under collective bargaining agreements is pending or, to the Company's knowledge, threatened, (B) no strike, labor dispute, slowdown or stoppage pending or, to the Company's knowledge, threatened against the Company or the Subsidiaries and (C) no union representation dispute currently existing concerning the employees of the Company or the Subsidiaries, (ii) to the Company's knowledge, no union organizing activities are currently taking place concerning the employees of the Company or the Subsidiaries and (iii) there has been no violation of any federal, state, local or foreign law relating to discrimination in the hiring, promotion or pay of employees, any applicable wage or hour laws or any provision of the Employee Retirement Income Security Act of 1974, as amended, or the rules and regulations promulgated thereunder concerning the employees of the Company or the Subsidiaries.

**(bb) Compliance with Environmental Laws.** The Company and the Subsidiaries and their respective properties, assets and operations are in compliance with, and the Company and the Subsidiaries hold all permits, authorizations and approvals required under, Environmental Laws (as defined below), except to the extent that failure to so comply or to hold such permits, authorizations or approvals would not, individually or in the aggregate, have a Material Adverse Effect; in the ordinary course of its business, the Company has from time to time engaged an environmental consulting firm to assist the Company in its compliance with Environmental Laws as they pertain to its businesses, operations and properties; there are no past, present or, to the Company's knowledge, reasonably anticipated future events, conditions, circumstances, activities, practices, actions, omissions or plans that would reasonably be expected to give rise to any material costs or liabilities to the Company or the Subsidiaries under, or to interfere with or prevent compliance by the Company or the Subsidiaries with, Environmental Laws; except as would not, individually or in the aggregate, have a Material Adverse Effect, neither the Company nor the Subsidiaries (i) are the subject of any investigation, (ii) have received any notice or claim, (iii) are a party to or affected by any pending or, to the Company's knowledge, threatened action, suit or proceeding, (iv) are bound by any judgment, decree or order or (v) have entered into any agreement, in each case relating to any alleged violation of any Environmental Law or any actual or alleged release or threatened release or cleanup at any location of any Hazardous Materials (as defined below) (as used herein, "**Environmental Law**" means any federal, state, local or foreign law, statute, ordinance, rule, regulation, order, decree, judgment, injunction, permit, license, authorization or other binding requirement, or common law, relating to health, safety or the protection, cleanup or restoration of the environment or natural resources, including those relating to the distribution, processing, generation, treatment, storage, disposal, transportation, other handling or release or threatened release of Hazardous Materials, and "**Hazardous Materials**" means any material (including, without limitation, pollutants, contaminants, hazardous or toxic substances or wastes) that is regulated by or may give rise to liability under any Environmental Law).

**(cc) ERISA Compliance.** The Company and the Subsidiaries and any "employee benefit plan" (as defined under the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations thereunder (collectively, "**ERISA**")) established or maintained by the Company, the Subsidiaries or their "ERISA Affiliates" (as defined below) are in compliance in all material respects with ERISA. "**ERISA Affiliate**" means, with respect to the Company or any of the Subsidiaries, any member of any group of organizations described in Sections 414(b), (c), (m) or (o) of the Internal Revenue Code of 1986, as amended, and the regulations and published interpretations thereunder (the "**Code**") of which the Company or such subsidiary is a member. No "reportable event" (as defined under ERISA) has occurred or is reasonably expected to occur with respect to any "employee benefit plan" established or maintained by the Company, the Subsidiaries or any of their ERISA Affiliates. No "employee benefit plan" established or maintained by the Company, the Subsidiaries or any of their ERISA Affiliates, if such "employee benefit plan" were terminated, would have any "amount of unfunded benefit liabilities" (as defined under ERISA). The Company has not incurred and does not reasonably

expect to incur any liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any “employee benefit plan” or (ii) Sections 412, 4971, 4975 or 4980B of the Code. Each employee benefit plan established or maintained by the Company, the Subsidiaries or any of their ERISA Affiliates that is intended to be qualified under Section 401(a) of the Code is so qualified and, to the knowledge of the Company, nothing has occurred, whether by action or failure to act, which would cause the loss of such qualification.

**(dd) Stock Options.** Except as disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, each stock option granted under any equity incentive plan or benefit plan, employee or director share option, share ownership or purchase plan, long term incentive plan, dividend reinvestment plan, inducement award under Nasdaq rules or other compensation of the Company or the Subsidiaries (each, a “**Stock Plan**”) was granted with a per share exercise price no less than the fair market value per share of common stock of the Company on the grant date of such option and no such grant involved any “back-dating” or similar practice with respect to the effective date of such grant; except as would not, individually or in the aggregate, have a Material Adverse Effect, each such option (i) was granted in compliance with applicable law and with the applicable Stock Plan(s), (ii) was duly approved by the board of directors (or a duly authorized committee thereof or an officer of the Company duly authorized by the board of directors or authorized committee thereof to make such grants) of the Company or the Subsidiaries, as applicable and (iii) has been properly accounted for in the Company’s financial statements in accordance with U.S. generally accepted accounting principles.

**(ee) Company Not an “Investment Company.”** The Company is not, and at no time during which 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 any sale of Shares will it be and, after giving effect to the offering and sale of the Securities and, upon exercise of the Pre-Funded Warrants, the issuance of the Warrant Shares, and the application of the proceeds thereof, it will not be an “investment company” or an entity “controlled” by an “investment company,” as such terms are defined in the Investment Company Act of 1940, as amended (the “**Investment Company Act**”).

**(ff) No Price Stabilization or Manipulation.** Neither the Company nor the Subsidiaries nor any of their respective directors or officers, affiliates or controlling persons has taken, directly or indirectly, without giving effect to activities by the Underwriters, any action designed, or which has constituted or 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 or resale of the Securities.

**(gg) Related-Party Transactions.** There are no business relationships or related-party transactions involving the Company or any of the 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 described as required.

**(hh) Parties to Lock-Up Agreements.** The Company has furnished to the Underwriters a letter agreement in the form attached hereto as Exhibit A (the “**Lock-up Agreement**”) from each of the persons listed on Exhibit B. Such Exhibit B lists under an appropriate caption the directors and officers of the Company. If any additional persons shall become directors or officers of the Company prior to the end of the Company Lock-up Period (as defined below), the Company shall cause each such person, prior to or contemporaneously with their appointment or election as a director or officer of the Company, to execute and deliver to Jefferies a Lock-up Agreement.

**(ii) *Statistical and Market-Related Data.*** All statistical, demographic or market-related data included or incorporated by reference in the Registration Statement, the Time of Sale Prospectus or the Prospectus are based on or derived from sources that the Company believes, after reasonable inquiry, to be reliable and accurate, and the Company has obtained the written consent to the use of such data from such sources to the extent required.

**(jj) *Sarbanes-Oxley Act.*** There is, and has been, no failure on the part of the Company or any of the Company's directors or officers, in their capacities as such, to comply with any applicable provision of the Sarbanes-Oxley Act, as amended and the rules and regulations promulgated in connection therewith, including Section 402 related to loans and Sections 302 and 906 related to certifications.

**(kk) *No Unlawful Contributions or Other Payments.*** Neither the Company nor any of the Subsidiaries nor, to the best of the Company's knowledge, any employee or agent of the Company or any Subsidiary, has made any contribution or other payment to any official of, or candidate for, any federal, state or foreign office in violation of any law or of the character required to be disclosed in the Registration Statement, the Time of Sale Prospectus or the Prospectus.

**(ll) *Anti-Corruption and Anti-Bribery Laws.*** Neither the Company nor any of the Subsidiaries nor any director, officer, or employee of the Company or any of the Subsidiaries, nor to the knowledge of the Company, any agent, affiliate or other person acting on behalf of the Company or any of the Subsidiaries has, in the course of its actions for, or on behalf of, the Company or any of the Subsidiaries (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; (ii) made or taken any act in furtherance of an offer, promise, or authorization of any direct or indirect unlawful payment or benefit to any foreign or domestic government official or employee, including of any government-owned or controlled entity or public international organization, or any political party, party official, or candidate for political office; (iii) violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended (the "**FCPA**"), the UK Bribery Act 2010, or any other applicable anti-bribery or anti-corruption law; or (iv) made, offered, authorized, requested, or taken an act in furtherance of any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment or benefit. The Company and the Subsidiaries and, to the knowledge of the Company, the Company's 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.

**(mm) *Money Laundering Laws.*** The operations of the Company and the 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, the money laundering statutes of all applicable jurisdictions, the rules and regulations thereunder and any related or similar applicable rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "**Money Laundering Laws**") and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of the Subsidiaries with respect to the Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

**(nn) *Sanctions.*** Neither the Company nor any of the Subsidiaries, directors, officers, or employees, nor, to the knowledge of the Company, after due inquiry, any agent, affiliate or other person acting on behalf of the Company or any of the Subsidiaries is currently the subject or the target of any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury

(“OFAC”) or the U.S. Department of State, the United Nations Security Council, the European Union, Her Majesty’s Treasury of the United Kingdom, or other relevant sanctions authority (collectively, “Sanctions”); nor is the Company or any of the Subsidiaries located, organized or resident in a country or territory that is the subject or the target of Sanctions, including, without limitation, Crimea, Cuba, Iran, North Korea, and Syria; and the Company will not directly or indirectly use the proceeds of this offering, or lend, contribute or otherwise make available such proceeds to any Subsidiary, or any joint venture partner or other person or entity, for the purpose of financing the activities of or business with any person, or in any country or territory, that at the time of such financing, is the subject or the target of Sanctions or in any other manner that will result in a violation by any person (including any person participating in the transaction whether as underwriter, advisor, investor or otherwise) of applicable Sanctions. For the past five years, the Company and the Subsidiaries have not knowingly engaged in and are not now knowingly engaged in any dealings or transactions with any person that at the time of the dealing or transaction is or was the subject or the target of Sanctions or with any Sanctioned Country.

(oo) **Brokers.** Except pursuant to this Agreement, neither the Company nor the Subsidiaries have incurred any liability for any finder’s or broker’s fee or agent’s commission in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby or by the Registration Statement.

(pp) **Forward-Looking Statements.** Each “forward-looking statement” (within the meaning of Section 27A of the Securities Act or Section 21E of the Exchange Act) contained in the Registration Statement, the Time of Sale Prospectus and the Prospectus has been made or reaffirmed with a reasonable basis and in good faith.

(qq) **Cybersecurity.** The Company and the Subsidiaries’ information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications, and databases (collectively, “IT Systems”) are adequate for, and operate and perform in all material respects as required in connection with the operation of the business of the Company and the Subsidiaries as currently conducted, free and clear of all material bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants. The Company and the Subsidiaries have implemented and maintained commercially reasonable physical, technical and administrative controls, policies, procedures, and safeguards to maintain and protect their material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and data, including “Personal Data,” used in connection with their businesses. “Personal Data” means (i) a natural person’s name, street address, telephone number, e-mail address, photograph, social security number or tax identification number, driver’s license number, passport number, credit card number, bank information, or customer or account number; (ii) any information which would qualify as “personally identifying information” under the Federal Trade Commission Act, as amended; (iii) “personal data” as defined by GDPR; (iv) any information which would qualify as “protected health information” under the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act (collectively, “HIPAA”); and (v) any other piece of information that allows the identification of such natural person, or his or her family, or permits the collection or analysis of any data related to an identified person’s health or sexual orientation. There have been no breaches, violations, outages or unauthorized uses of or accesses to same, except for those that have been remedied without material cost or liability or the duty to notify any other person, nor any incidents under internal review or investigations relating to the same. The Company and the Subsidiaries are presently in material compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Personal Data

and to the protection of such IT Systems and Personal Data from unauthorized use, access, misappropriation or modification.

**(rr) Compliance with Data Privacy Laws.** The Company and the Subsidiaries are, and at all prior times were, in material compliance with all applicable state and federal data privacy and security laws and regulations, including without limitation HIPAA, and the Company and the Subsidiaries represent and warrant that it and they do not currently have operations nor undertake activities that require compliance with the European Union General Data Protection Regulation (“**GDPR**”) (EU 2016/679) (collectively, the “**Privacy Laws**”). To ensure compliance with the Privacy Laws, the Company and the Subsidiaries have in place, comply with, and take appropriate steps reasonably designed to ensure compliance in all material respects with their policies and procedures relating to data privacy and security and the collection, storage, use, disclosure, handling, and analysis of Personal Data (the “**Policies**”). The Company and the Subsidiaries have at all times made all disclosures to users or customers required by applicable laws and regulatory rules or requirements, and none of such disclosures made or contained in any Policy have, to the knowledge of the Company, been inaccurate or in violation of any applicable laws and regulatory rules or requirements in any material respect. The Company further certifies that neither it nor any Subsidiary: (i) has received notice of any actual or potential liability under or relating to, or actual or potential violation of, any of the Privacy Laws, and has no knowledge of any event or condition that would reasonably be expected to result in any such notice; (ii) is currently conducting or paying for, in whole or in part, any investigation, remediation, or other corrective action pursuant to any Privacy Law; or (iii) is a party to any order, decree, or agreement that imposes any obligation or liability under any Privacy Law.

**(ss) Smaller Reporting Company Status.** The Company is a “smaller reporting company,” as defined in Rule 12b-2 under the Exchange Act and in Rule 405 under the Securities Act.

**(tt) Emerging Growth Company Status.** From the time of filing of the Registration Statement with the Commission (or, if earlier, the first date on which the Company engaged, directly or through any person authorized to act on its behalf, in any Section 5(d) Communication) through December 31, 2019, the Company was an EGC, as defined in Section 2(a)(19) of the Securities Act

**(uu) Section 5(d) Communications.** Prior to January 1, 2020, the Company (i) did not alone engage in communications with potential investors in reliance on Section 5(d) of the Securities Act with respect to the offering of the Securities and (ii) did not authorize anyone other than the Representative to engage in such communications with respect to the offering of the Securities.

**(vv) Rule 163B Communications.** The Company (i) has not alone engaged in communications with potential investors in reliance on Rule 163B under the Securities Act other than Permitted Rule 163B Communications with the consent of the Representative with entities that are QIBs or IAIs and (ii) has not authorized anyone other than the Representative to engage in such communications; the Company reconfirms that the Representative has been authorized to act on its behalf in undertaking Marketing Materials, Rule 163B Oral Communications and Rule 163B Written Communications; as of the Applicable Time, each Permitted Rule 163B Communication, when considered together with the Time of Sale Prospectus, did not, as of the Applicable Time, 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 under which they were made, not misleading; and each Permitted Rule 163B Communication, if any, does not, as of the date hereof, conflict with the information contained in the Registration Statement, the Preliminary Prospectus and the Prospectus.

**(ww) No Contract Terminations.** Neither the Company nor the Subsidiaries have sent any communication or received any written communication regarding termination of, or intent not to renew, any of the contracts or agreements referred to or described in the Time of Sale Prospectus, any preliminary prospectus, the Prospectus, any free writing prospectus or the Registration Statement as being in effect, or filed as an exhibit to the Registration Statement, and no such termination or non-renewal has been threatened by the Company or the Subsidiaries or, to the Company's knowledge, threatened in writing by any other party to any such contract or agreement.

**(xx) Dividend Restrictions.** The Subsidiaries are not currently prohibited, directly or indirectly, from paying any dividends to the Company, from making any other distribution on their capital stock, from repaying to the Company any loans or advances to any of the Subsidiaries from the Company or from transferring any of the Subsidiaries' property or assets to the Company, except, in each case, as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus.

**(yy) Clinical Data and Regulatory Compliance.** The preclinical tests and clinical trials that are being conducted by the Company and, to the knowledge of the Company, the preclinical tests and clinical trials that are being conducted by the Company's strategic collaborators, and that in each case are described in, or the results of which are referred to in, the Registration Statement, the Time of Sale Prospectus or the Prospectus were and, if still pending, are being conducted in all material respects in accordance with protocols, procedures and controls filed with the appropriate regulatory authorities for each such test or trial, as the case may be, and with standard accepted medical and scientific research procedures for products or product candidates comparable to those being developed by the Company; the descriptions of the results of such tests and trials contained in the Registration Statement, the Time of Sale Prospectus and the Prospectus are accurate and complete in all material respects and fairly present the data derived from such tests and trials, and the Company has no knowledge of any other studies or tests or trials not described in the Registration Statement, the Time of Sale Prospectus and the Prospectus the results of which are inconsistent with, or otherwise call into question the results described or referred to in the Registration Statement, the Time of Sale Prospectus and the Prospectus; neither the Company nor any of the Subsidiaries has received any notices or other correspondence from the Food and Drug Administration of the U.S. Department of Health and Human Services or any committee thereof or from any other U.S. or foreign government or drug or medical device regulatory agency (collectively, the "**Regulatory Agencies**") requiring the termination, suspension or material modification of any tests or trials that are described or referred to in the Registration Statement, the Time of Sale Prospectus or the Prospectus; and the Company and the Subsidiaries have operated and currently are in compliance in all material respects with all applicable rules, regulations and policies of the Regulatory Agencies.

**(zz) No Rights to Purchase Additional Securities.** The issuance and sale of the Offered Shares or the Pre-Funded Warrants 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 additional securities of the Company.

**(aaa) FINRA Affiliations.** To the Company's knowledge, there are no affiliations or associations between (i) any member of FINRA and (ii) the Company or any of the Company's officers, directors or 5% or greater security holders who are affiliated with such officers or directors or any beneficial owner of the Company's unregistered equity securities that were acquired at any time on or after the 180th day immediately preceding the date the Registration Statement was initially filed with the Commission, except as disclosed in writing to the Representative or disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus.

**(bbb) Registration Rights.** There are no persons with registration rights or other similar rights to have any securities registered for sale pursuant to the Registration Statement or otherwise registered for sale or sold by the Company under the Securities Act pursuant to this Agreement, other than those rights that have been duly waived as of the date of this Agreement, copies of such waivers having been made available to you.

Any certificate signed by any officer of the Company or any of the Subsidiaries and delivered to any Underwriter or to counsel for the Underwriters in connection with the offering, or the purchase and sale, of the Securities 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 hereof, 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 Securities.**

**(a) The Firm Shares.** Upon the terms herein set forth, the Company agrees to issue and sell to the several Underwriters an aggregate of 4,752,420 Firm Shares and 1,800,000 Pre-Funded Warrants. 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 and Pre-Funded Warrants 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 \$9.3248 per share and a price per Pre-Funded Warrant of \$9.3238.

**(b) The First Closing Date.** Delivery of the Firm Shares and Pre-Funded Warrants to be purchased by the Underwriters and payment therefor shall be made at the offices of Wilmer Cutler Pickering Hale & Dorr LLP (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 January 30, 2020, or such other time and date not later than 1:30 p.m. New York City time, on February 7, 2020 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 982,863 Optional Shares from the Company at the purchase price per share to be paid by the Underwriters for the Firm Shares, less an amount per share equal to any dividend or distribution declared by the Company and payable on the Firm Shares but not payable on Optional 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 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 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, 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) that bears the same proportion to the total number of Optional Shares to be purchased as the number of Firm Shares set forth on Schedule A opposite the name of such Underwriter bears to the total number of Firm Shares. 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 Securities.** 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 Securities as soon after this Agreement has been executed as the Representative, in its sole judgment, have determined is advisable and practicable.

**(e) Payment for the Securities.** (i) Payment for the Securities 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 Pre-Funded Warrants and any Optional Shares the Underwriters have agreed to purchase. Jefferies, individually and not as the Representative of the Underwriters, may (but shall not be obligated to) make payment for any Securities 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 Securities.** The Company shall deliver, or cause to be delivered to the Representative for the accounts of the several Underwriters the Firm Shares and Pre-Funded Warrants at the First Closing Date, against 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 to the Representative for the accounts of the several Underwriters, 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. The Offered Shares and Pre-Funded Warrants 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 of the Company.**

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 you in New York City, without charge, prior to 10:00 a.m. New York City time on the second business day next succeeding the date of this Agreement and during the period when a prospectus relating to the Securities 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 Securities, as many copies of the Time of Sale Prospectus, the Prospectus and any supplements and amendments thereto or to the Registration Statement as you may reasonably request.

**(b) Representative's Review of Proposed Amendments and Supplements.** During the period when a prospectus relating to the Securities 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 (including any amendment or supplement through incorporation of any report filed under the Exchange Act) without the Representative's prior written consent, which consent shall not be unreasonably withheld. Prior to amending or supplementing any preliminary prospectus, the Time of Sale Prospectus or the Prospectus (including any amendment or supplement through incorporation of any report filed under the Exchange Act), 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, which consent shall not be unreasonably withheld. 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. 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 Securities (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, which consent shall not be unreasonably withheld.

**(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 Securities 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) hereof) 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 of: (i) the receipt of any comments of, or requests for additional or supplemental information from, the Commission; (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 at the earliest possible moment. 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, during the Prospectus Delivery Period (as defined below), 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) hereof) 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). As used herein, the term "Prospectus Delivery Period" means such period of time after the first date of any public offering of the Securities as in the opinion of counsel for the Underwriters a prospectus relating to the Securities is required by law to be delivered (or required to be delivered but for Rule 172 under the Securities Act) in connection with the sales of Shares by any Underwriter or dealer.

**(h) *Blue Sky Compliance.*** The Company shall cooperate with the Representative and counsel for the Underwriters to qualify or register the Securities for sale under (or obtain exemptions from the application of) the state securities or blue sky laws or Canadian provincial securities laws (or other foreign laws) of those jurisdictions reasonably designated by the Representative, shall comply with such laws and shall continue such qualifications, registrations and exemptions in effect so long as required for the distribution of the Securities. The Company shall not be required to qualify as a foreign corporation or to take any action that would subject it to general service of process in any such jurisdiction where it is not presently qualified or where it would be subject to taxation as a foreign corporation. The Company will advise the Representative promptly of the suspension of the qualification or registration of (or any such exemption relating to) the Securities 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 Securities 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 engage and 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 Securities 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 Securities 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 Nasdaq all reports and documents required to be filed under the Exchange Act.

**(m) Listing.** The Company will use its best efforts to list, subject to notice of issuance, the Offered Shares and the Warrant Shares on Nasdaq.

**(n) 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 Securities. As used herein, the term “**electronic Prospectus**” means a form of Time of Sale 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 Securities; (ii) it shall disclose the same information as the paper Time of Sale 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 Jefferies, that will allow investors to store and have continuously ready access to the Time of Sale 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 Time of Sale Prospectus.

**(o) Agreement Not to Offer or Sell Additional Shares.** During the period commencing on and including the date hereof and continuing through and including the 90<sup>th</sup> day following the date of the Prospectus (the “**Lock-up Period**”), the Company will not, without the prior written consent of Jefferies (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 Securities); (viii) effect a reverse stock split, recapitalization, share consolidation, reclassification or similar transaction affecting the outstanding Shares; or (ix) 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, restricted stock units 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) file a registration statement on Form S-8 with respect to any Shares or Related Securities issued or issuable 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, (D) issuances of Shares or other securities in connection with a transaction that includes a commercial

relationship (including joint ventures, marketing or distribution arrangements, collaboration agreements or intellectual property license agreements) or any acquisition of assets or at least a controlling portion of the equity of another entity, provided that (x) the aggregate number of shares or securities issued pursuant to this clause (D) shall not exceed 5.0% of the total number of outstanding shares of the Company's common stock immediately following the issuance and sale of the Offered Shares pursuant hereto, and (y) the recipient of any such shares or securities shall sign a Lock-Up Agreement in the form attached hereto as Exhibit A. 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.

**(p) Future Reports to the Representative.** During the period of three years hereafter, the Company will furnish to the Representative, c/o Jefferies, at 520 Madison Avenue, New York, New York 10022, Attention: Global Head of Syndicate: (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 report filed by the Company with the Commission 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(p) shall be satisfied to the extent that such reports, statement, communications, financial statements or other documents are available on EDGAR.

**(q) Warrant Shares Reserved.** The Company shall, at all times while any Pre-Funded Warrants are outstanding, reserve and keep available out of the aggregate of its authorized but unissued and otherwise unreserved shares of Common Stock, solely for the purpose of enabling it to issue Warrant Shares upon exercise of such Pre-Funded Warrants, the number of Warrant Shares that are initially issuable and deliverable upon the exercise of the then-outstanding Pre-Funded Warrants.

**(r) Investment Limitation.** The Company shall not invest or otherwise use the proceeds received by the Company from its sale of the Securities in such a manner as would require the Company or any of the Subsidiaries 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, any action designed to or that might cause or result in stabilization or manipulation of the price of the Shares or any "reference security" (as defined in Rule 100 of the Regulation M under the Exchange Act ("**Regulation M**")) with respect to the Shares, whether to facilitate the sale or resale of the Securities 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, “lock-up” agreements entered into by the Company’s 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 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.

**(v) Amendments and Supplements to Permitted Section Rule 163B Communications.** If at any time following the distribution of any Permitted Rule 163B Communication during the Prospectus Delivery Period, there occurred or occurs an event or development as a result of which such Permitted Rule 163B Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representative and will promptly amend or supplement, at its own expense, such Permitted Rule 163B Communication to eliminate or correct such untrue statement or omission.

**(w) Announcement Regarding Lock-ups.** The Company agrees to announce the Underwriters’ intention to release any director or “officer” (within the meaning of Rule 16a-1(f) under the Exchange Act) of the Company from any of the restrictions imposed by any Lock-Up Agreement, by issuing, through a major news service, a press release in form and substance satisfactory to the Representative promptly following the Company’s receipt of any notification from the Representative in which such intention is indicated, but in any case not later than the close of the third business day prior to the date on which such release or waiver is to become effective; provided, however, that nothing shall prevent the Representative, on behalf of the Underwriters, from announcing the same through a major news service, irrespective of whether the Company has made the required announcement; and *provided, further*, that no such announcement shall be made of any release or waiver granted solely to permit a transfer of securities that is not for consideration and where the transferee has agreed in writing to be bound by the terms of a Lock-Up Agreement in the form set forth as Exhibit A hereto.

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 Securities (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 Securities 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, each Permitted Rule 163B Communication, 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 Securities 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 (not to exceed \$10,000 with respect to this clause (vi)), (vii) the costs, fees and expenses incurred by 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 Securities, including any related filing fees and the legal fees of, and disbursements by, counsel to the Underwriters (not to exceed \$10,000 with respect to this clause (vii)), (viii) the costs and expenses of the Company relating to investor presentations on any “road show”, any Permitted Rule 163B Communication, any Rule 163B Oral Communication undertaken in connection with the offering of the Securities, 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, travel and lodging expenses of the representatives, employees and officers of the Company and any such consultants, and the cost of any aircraft chartered in connection with the road show, (ix) the fees and expenses associated with listing the Offered Shares and Warrant Shares on Nasdaq, and (x) all other fees, costs and expenses of the nature referred to in Item 14 of Part II of the Registration Statement. Except as provided in this Section 4 or in Section 7, Section 9 or Section 10 hereof, 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 Securities 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 hereof 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 Ernst & Young LLP, independent registered public accountants for the Company, 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.

**(b) Compliance with Registration Requirements; No Stop Order.**

(i) The Company shall have filed the Prospectus with the Commission (including the information previously omitted from the Registration Statement pursuant to Rule 430B 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 previously omitted from the Registration Statement pursuant to such Rule 430B, 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, to the knowledge of the Company, threatened by the Commission.

(c) **No Material Adverse Change 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:

(i) in the judgment of the Representative there shall not have occurred any Material Adverse Change; and

(ii) there shall not have occurred any downgrading, nor shall any notice have been given of any intended or potential downgrading or of any review for a possible change that does not indicate the direction of the possible change, in the rating accorded any securities of the Company or any of the Subsidiaries by any “nationally recognized statistical rating organization” as that term is used in Rule 15c3-1(c)(2)(vi)(F) under the Exchange Act.

(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 of Goodwin Procter LLP, counsel for the Company, dated as of such date, in form and substance previously agreed to with the Representative and counsel for the Underwriters.

(e) **Opinion of Intellectual Property Counsel.** On each of the First Closing Date and each Option Closing Date the Representative shall have received the opinions of Foley Hoag LLP and Fish & Richardson P.C., each special counsel for the Company with respect to patents and proprietary rights, dated as of such date, in form and substance previously agreed to with the Representative and counsel for the Underwriters.

(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 Wilmer Cutler Pickering Hale & Dorr LLP, counsel for the Underwriters in connection with the offer and sale of the Securities, 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, on behalf of the Company and not in their individual capacities, 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 Change;

(ii) the representations, warranties and covenants of the Company set forth in Section 1 of this Agreement 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) Certificate of Chief Financial Officer.** On and as of the date hereof and each of the First Closing Date and each Option Closing Date, the Representative shall have received a certificate of the Chief Financial Officer of the Company in form and substance reasonably satisfactory to the Representative

**(i) Bring-down Comfort Letter.** On each of the First Closing Date and each Option Closing Date the Representative shall have received from Ernst & Young LLP, independent registered public accountants for the Company, a letter dated such date, in form and substance satisfactory to the Representative, which letter shall: (i) 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 business days prior to the First Closing Date or the applicable Option Closing Date, as the case may be; and (ii) cover certain financial information contained in the Prospectus.

**(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 A hereto from each of the persons listed on Exhibit B hereto, 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) 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 Securities 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 Securities 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 Jefferies 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 Securities 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 Securities, including, but not limited to, fees and disbursements of counsel, printing expenses, travel expenses, postage, facsimile and telephone charges.

**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, directors, officers, employees and agents, and each person, if any, who controls any Underwriter within the meaning of the Securities Act or the Exchange Act against any loss, claim, damage, liability or expense, as incurred, to which such Underwriter or such affiliate, director, officer, employee, agent or controlling person may become subject, under the Securities Act, the Exchange Act, other federal or state statutory law or regulation, or the laws or regulations of foreign jurisdictions where Securities have been offered or sold or at common law or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of the Company), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, or any amendment thereto, or the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading; or (ii) any untrue statement or alleged untrue statement of a material fact included in any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus that the Company has used, referred to or filed, or is required to file, pursuant to Rule 433(d) of the Securities Act, any Marketing Material, any Section 5(d) Written Communication, any Rule 163B Written Communication or the Prospectus (or any amendment or supplement to the foregoing), or the omission or alleged omission to state therein a material fact necessary in order to make the statements, in the light of the circumstances under which they were made, not misleading; or (iii) any act or failure to act or any alleged act or failure to act by any Underwriter in connection with, or relating in any manner to, the Securities or the offering contemplated hereby, and which is included as part of or referred to in any loss, claim, damage, liability or action arising out of or based upon any matter covered by clause (i) or (ii) above; and to reimburse each Underwriter and each such affiliate, director, officer, employee, agent and controlling person for any and all expenses (including the reasonable fees and disbursements of counsel) as such expenses are incurred by such Underwriter or such affiliate, director, officer, employee, agent or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action; *provided, however*, that the foregoing indemnity agreement shall not apply to any loss, claim, damage, liability or expense to the extent, but only to the extent, arising out of or based upon any untrue statement or alleged untrue statement or omission or alleged omission made in reliance upon and in conformity with information relating to any Underwriter furnished to the Company by the Representative in writing expressly for use in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, any such free writing prospectus, any Marketing Material, any Section 5(d) Written Communication, any Rule 163B Written Communication or the Prospectus (or any amendment or supplement thereto), it being understood and agreed that the only such information consists of the information described in Section 9(b) below. The indemnity agreement set forth in this Section 9(a) shall be in addition to any liabilities that the Company may otherwise have.

**(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 and each person, if any, who controls the Company within

the meaning of the Securities Act or the Exchange Act, against any loss, claim, damage, liability or expense, as incurred, to which the Company, or any such director, officer or controlling person may become subject, under the Securities Act, the Exchange Act, or other federal or state statutory law or regulation, or at common law or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of such Underwriter), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, or any amendment thereto, or any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading or (ii) any untrue statement or alleged untrue statement of a material fact included in any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus that the Company has used, referred to or filed, or is required to file, pursuant to Rule 433 of the Securities Act, any Section 5(d) Written Communication, any Rule 163B Written Communication or the Prospectus (or any such amendment or supplement) or the omission or alleged omission to state therein a material fact necessary in order to make the statements, in the light of the circumstances under which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, such preliminary prospectus, the Time of Sale Prospectus, such free writing prospectus, such Section 5(d) Written Communication, such Rule 163B Written Communication or the Prospectus (or any such amendment or supplement), in reliance upon and in conformity with information relating to such Underwriter furnished to the Company by the Representative in writing expressly for use therein; and to reimburse the Company, or any such director, officer or controlling person for any and all expenses (including the fees and disbursements of counsel) as such expenses are incurred by the Company, or any such director, officer or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action. The Company hereby acknowledges that the only information that the Representative has furnished to the Company expressly for use in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) of the Securities Act, any Section 5(d) Written Communication, any Rule 163B Written Communication or the Prospectus (or any amendment or supplement to the foregoing) are the statements set forth in the first sentence of the third paragraph, the first three sentences of the first paragraph under the title "Commissions and Expenses" and the statements in the first and sixth paragraphs immediately below the title "Stabilization," in each case under the caption "Underwriting" in the Preliminary Prospectus Supplement and the Final Prospectus Supplement. The indemnity agreement set forth in this Section 9(b) shall be in addition to any liabilities that each Underwriter may otherwise have.

**(c) *Notifications and Other Indemnification Procedures.*** Promptly after receipt by an indemnified party under this Section 9 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against an indemnifying party under this Section 9, notify the indemnifying party in writing of the commencement thereof, but the omission so to notify the indemnifying party will not relieve the indemnifying party from any liability which it may have to any indemnified party to the extent the indemnifying party is not materially prejudiced as a proximate result of such failure and shall not in any event relieve the indemnifying party from any liability that it may have otherwise than on account of this indemnity agreement. In case any such action is brought against any indemnified party and such indemnified party seeks or intends to seek indemnity from an indemnifying party, the indemnifying party will be entitled to participate in, and, to the extent that it shall elect, jointly with all other indemnifying parties similarly notified, by written notice delivered to the indemnified party promptly after receiving the aforesaid notice from such indemnified party, to assume the defense thereof with counsel reasonably satisfactory to such indemnified party; *provided, however*, that if the defendants in any such action include both the indemnified party and the indemnifying party and the indemnified party

shall have reasonably concluded that a conflict may arise between the positions of the indemnifying party and the indemnified party in conducting the defense of any such action or that there may be legal defenses available to it and/or other indemnified parties which are different from or additional to those available to the indemnifying party, the indemnified party or parties shall have the right to select separate counsel to assume such legal defenses and to otherwise participate in the defense of such action on behalf of such indemnified party or parties. Upon receipt of notice from the indemnifying party to such indemnified party of such indemnifying party's election so to assume the defense of such action and approval by the indemnified party of counsel, such approval not to be unreasonably withheld or delayed, the indemnifying party will not be liable to such indemnified party under this Section 9 for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof unless (i) the indemnified party shall have employed separate counsel in accordance with the proviso to the preceding sentence (it being understood, however, that the indemnifying party shall not be liable for the fees and expenses of more than one separate counsel (together with one local counsel in each relevant jurisdiction), representing the indemnified parties who are parties to such action), which counsel (together with one local counsel in each relevant jurisdiction) for the indemnified parties shall be selected by Jefferies (in the case of counsel for the indemnified parties referred to in Section 9(a) above) or by the Company (in the case of counsel for the indemnified parties referred to in Section 9(b) above) or (ii) the indemnifying party shall not have employed counsel satisfactory to the indemnified party to represent the indemnified party within a reasonable time after notice of commencement of the action or (iii) the indemnifying party has authorized in writing the employment of counsel for the indemnified party at the expense of the indemnifying party, in each of which cases the fees and expenses of counsel shall be at the expense of the indemnifying party and shall be paid as they are incurred.

**(d) Settlements.** The indemnifying party under this Section 9 shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party against any loss, claim, damage, liability or expense by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel as contemplated by Section 9(c) hereof, the indemnifying party shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 30 days after receipt by such indemnifying party of the aforesaid request and (ii) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any indemnified party is or could have been a party and indemnity was or could have been sought hereunder by such indemnified party, unless such settlement, compromise or consent includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such action, suit or proceeding and does not include an admission of fault or culpability or a failure to act by or on behalf of such indemnified party.

**Section 10. Contribution.** If the indemnification provided for in Section 9 is for any reason held to be unavailable to or otherwise insufficient to hold harmless an indemnified party in respect of any losses, claims, damages, liabilities or expenses referred to therein, then each indemnifying party shall contribute to the aggregate amount paid or payable by such indemnified party, as incurred, as a result of any losses, claims, damages, liabilities or expenses referred to therein (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, from the offering of the Securities pursuant to this Agreement or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is

appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and the Underwriters, on the other hand, in connection with the statements or omissions which resulted in such losses, claims, damages, liabilities or expenses, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, in connection with the offering of the Securities pursuant to this Agreement shall be deemed to be in the same respective proportions as the total proceeds from the offering of the Securities pursuant to this Agreement (before deducting expenses) received by the Company, and the total underwriting discounts and commissions received by the Underwriters, in each case as set forth on the front cover page of the Prospectus, bear to the aggregate initial public offering price of the Securities as set forth on such cover. The relative fault of the Company, on the one hand, and the Underwriters, on the other hand, shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company, on the one hand, or the Underwriters, on the other hand, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The amount paid or payable by a party as a result of the losses, claims, damages, liabilities and expenses referred to above shall be deemed to include, subject to the limitations set forth in Section 9(c), any legal or other fees or expenses reasonably incurred by such party in connection with investigating or defending any action or claim. The provisions set forth in Section 9(c) with respect to notice of commencement of any action shall apply if a claim for contribution is to be made under this Section 10; *provided, however*, that no additional notice shall be required with respect to any action for which notice has been given under Section 9(c) for purposes of indemnification.

The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 10 were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to in this Section 10.

Notwithstanding the provisions of this Section 10, no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions received by such Underwriter in connection with the Securities underwritten by it and distributed to the public. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations to contribute pursuant to this Section 10 are several, and not joint, in proportion to their respective underwriting commitments as set forth opposite their respective names on Schedule A. For purposes of this Section 10, each affiliate, director, officer, employee and agent of an Underwriter and each person, if any, who controls an Underwriter within the meaning of the Securities Act or the Exchange Act shall have the same rights to contribution as such Underwriter, and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of the Securities Act and the Exchange Act shall have the same rights to contribution as the Company.

**Section 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 Securities that it or they have agreed to purchase hereunder on such date, and the aggregate number of Securities which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase does not exceed 10% of the aggregate number of the Securities to be purchased on such date, the Representative may make arrangements satisfactory to the Company for the purchase of such Securities 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 Securities 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 Securities and the aggregate number of Securities with respect to which such default occurs exceeds 10% of the aggregate number of Securities to be purchased on such date, and arrangements satisfactory to the Representative and the Company for the purchase of such Securities 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 Jefferies 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 Nasdaq, or trading in securities generally on either 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 or Massachusetts 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 Jefferies is material and adverse and makes it impracticable to market the Securities 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 Jefferies there shall have occurred any Material Adverse Change; 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 Jefferies 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 hereof 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 Securities pursuant to this Agreement, including the determination of the public offering price of the Securities 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, 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 or directors or any controlling person, as the case may be, and, anything herein to the contrary notwithstanding, will survive delivery of and payment for the Securities 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:	Jefferies LLC 520 Madison Avenue New York, New York 10022 Facsimile: (646) 619-4437 Attention: General Counsel
to:  with a copy	Wilmer Cutler Pickering Hale & Dorr LLP 7 World Trade Center 250 Greenwich Street New York, New York 10006 Facsimile: (212) 230-8888 Attention: Lisa Firenze
If to the Company:	Concert Pharmaceuticals, Inc. 65 Hayden Avenue, Suite 3000N Lexington, MA 02421 Attention: Marc Becker and Jeff Munsie
to:  with a copy	Goodwin Procter LLP 100 Northern Avenue Boston, Massachusetts 02210 Facsimile: (617) 801-8731 Attention: John Mutkoski

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 hereof, 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 representatives, and no other person will have any right or obligation hereunder. The term “**successors**” shall not include any purchaser of the Securities 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. Recognition of the U.S. Special Resolution Regimes.**

(a) In the event that any Underwriter that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Underwriter of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that any Underwriter that is a Covered Entity or a BHC Act Affiliate of such Underwriter becomes subject to a

proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Underwriter are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

For purposes of this Agreement, (A) “**BHC Act Affiliate**” has the meaning assigned to the term “affiliate” in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k); (B) “Covered Entity” means any of

the following: (i) a “**Covered Entity**” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b); (C) “**Default Right**” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable; and (D) “**U.S. Special Resolution Regime**” means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

**Section 19. 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. Each of the parties hereto hereby waives any right to trial by jury in any suit or proceeding arising out of or relating to this Agreement. Any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby (“**Related Proceedings**”) may be instituted in the federal courts of the United States of America located in the Borough of Manhattan in the City of New York or the courts of the State of New York in each case located in the Borough of Manhattan in the City of New York (collectively, the “**Specified Courts**”), and each party irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court (a “**Related Judgment**”), as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party’s address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum.

**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, 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 hereof 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.

Very truly yours,

**CONCERT PHARMACEUTICALS, INC.**

By: /s/ Marc A. Becker  
Name: Marc A. Becker  
Title: CFO

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

**JEFFERIES LLC**

Acting individually and as Representative  
of the several Underwriters named in  
the attached Schedule A.

**JEFFERIES LLC**

By: /s/ Dustin Tyner  
Name: Dustin Tyner  
Title: Managing Director

**Schedule A**

<b>Underwriters</b>	<b>Number of Firm Shares</b>	<b>Number of Pre-Funded Warrants</b>
Jefferies LLC	2,851,452	1,080,000
Mizuho Securities USA LLC	712,863	270,000
JMP Securities LLC	712,863	270,000
H.C. Wainwright & Co., LLC	475,242	180,000
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Total	4,752,420	1,800,000
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**Free Writing Prospectuses Included in the Time of Sale Prospectus**

None.

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**Pricing Information Provided Orally by Underwriters**

Price per Share: \$9.92

Price per Pre-Funded Warrant: \$9.919

Number of Shares: 4,752,420 (plus 982,863 Optional Shares)

Number of Warrant Shares underlying Pre-Funded Warrants: 1,800,000

Underwriting discounts and commissions per Share: \$0.5952

Underwriting discounts and commissions per Pre-Funded Warrant: \$0.5952

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**Permitted Rule 163B Communications**

None.

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**Form of Lock-up Agreement**

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**Directors and Officers**  
**Signing Lock-up Agreement**

Directors:

Richard H. Aldrich  
Thomas G. Auchincloss Jr.  
Ronald W. Barrett Ph.D.  
Jesper Høiland  
Peter Barton Hutt  
Wilfred E. Jaeger M.D.  
Christine van Heek

Officers:

Roger D. Tung Ph.D.  
Marc A. Becker  
James V. Casella, Ph.D.  
Jeffrey A. Munsie  
Nancy Stuart

## CONCERT PHARMACEUTICALS, INC.

## FORM OF PRE-FUNDED WARRANT TO PURCHASE COMMON STOCK

Number of Shares: [       ]  
 (subject to adjustment)

Warrant No. [       ]  
 Original Issue Date: January [     ], 2020

Concert Pharmaceuticals, Inc., a Delaware corporation (the “Company”), hereby certifies that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Perceptive Life Sciences Master Fund, LTD, or its permitted registered assigns (the “Holder”), is entitled, subject to the terms set forth below, to purchase from the Company up to a total of [     ] shares of common stock, \$0.001 par value per share (the “Common Stock”), of the Company (each such share, a “Warrant Share” and all such shares, the “Warrant Shares”) at an exercise price per share equal to \$0.001 per share (as adjusted from time to time as provided in Section 9 herein, the “Exercise Price”), upon surrender of this *Warrant to Purchase Common Stock* (including any *Warrants to Purchase Common Stock* issued in exchange, transfer or replacement hereof, this “Warrant”) at any time and from time to time on or after the date hereof (the “Original Issue Date”), subject to the following terms and conditions:

1. Definitions. For purposes of this Warrant, the following terms shall have the following meanings:

(a) “Affiliate” means any Person directly or indirectly controlled by, controlling or under common control with, a Holder, but only for so long as such control shall continue. For purposes of this definition, “control” (including, with correlative meanings, “controlled by,” “controlling” and “under common control with”) means, with respect to a Person, possession, direct or indirect, of (a) the power to direct or cause direction of the management and policies of such Person (whether through ownership of securities or partnership or other ownership interests, by contract or otherwise), or (b) at least 50% of the voting securities (whether directly or pursuant to any option, warrant or other similar arrangement) or other comparable equity interests.

(b) “Commission” means the United States Securities and Exchange Commission.

(c) “Closing Sale Price” means, for any security as of any date, the last trade price for such security on the Principal Trading Market for such security, as reported by Bloomberg Financial Markets, or, if such Principal Trading Market begins to operate on an extended hours basis and does not designate the last trade price, then the last trade price of such security immediately prior to 4:00 P.M., New York City time, as reported by Bloomberg Financial Markets, or if the foregoing do not apply, the last trade price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg Financial Markets, or, if no last trade price is reported for such security by Bloomberg Financial Markets, the average of the bid and ask prices, of any market makers for such security as reported in the “pink sheets” by OTC Markets Group Inc. If the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Sale Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then the Board of Directors of the Company shall use its good faith judgment to determine the fair market value of such security on such date. The Board of Directors’ determination shall be binding upon all parties absent demonstrable error. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during the applicable calculation period.

(d) “Principal Trading Market” means the national securities exchange or other trading market on which the Common Stock is primarily listed on and quoted for trading, which, as of the Original Issue Date, shall be the Nasdaq Global Select Market.

(e) “*Registration Statement*” means the Company’s Registration Statement on Form S-3 (File No. 333-223334), as amended, declared effective on March 7, 2018.

(f) “*Securities Act*” means the Securities Act of 1933, as amended.

(g) “*Trading Day*” means any weekday on which the Principal Trading Market is open for trading.

(h) “*Transfer Agent*” means Computershare Trust Company, N.A., the Company’s transfer agent and registrar for the Common Stock, and any successor appointed in such capacity.

2. Issuance of Securities; Registration of Warrants. The Warrant and Warrant Shares, as initially issued by the Company, are offered and will be sold pursuant to the Registration Statement. The Company shall register ownership of this Warrant, upon records to be maintained by the Company for that purpose (the “*Warrant Register*”), in the name of the record Holder (which shall include the initial Holder or, as the case may be, any assignee to which this Warrant is assigned hereunder) from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

3. Registration of Transfers. Subject to compliance with all applicable securities laws, the Company shall, or will cause its Transfer Agent to, register the transfer of all or any portion of this Warrant in the Warrant Register, upon surrender of this Warrant, and payment for all applicable transfer taxes (if any) by the Holder or any subsequent holder. Upon any such registration or transfer, a new warrant to purchase Common Stock in substantially the form of this Warrant (any such new warrant, a “*New Warrant*”) evidencing the portion of this Warrant so transferred shall be issued to the transferee, and a New Warrant evidencing the remaining portion of this Warrant not so transferred, if any, shall be issued to the transferring Holder. The acceptance of the New Warrant by the transferee thereof shall be deemed the acceptance by such transferee of all of the rights and obligations in respect of the New Warrant that the Holder has in respect of this Warrant. The Company shall, or will cause its Transfer Agent to, prepare, issue and deliver at the Company’s own expense any New Warrant under this Section 3. Until due presentment for registration of transfer, the Company may treat the registered Holder hereof as the owner and holder for all purposes, and the Company shall not be affected by any notice to the contrary.

4. Exercise and Duration of Warrants.

(a) All or any part of this Warrant shall be exercisable by the registered Holder in any manner permitted by this Warrant at any time and from time to time on or after the Original Issue Date.

(b) The Holder may exercise this Warrant by delivering (as determined in accordance with the notice provisions hereof) to the Company an exercise notice, in the form attached as Schedule 1 hereto (the “*Exercise Notice*”), completed and duly signed. Within one (1) Trading Day following the date of delivery of the Exercise Notice, the Holder shall make payment of the Exercise Price for the number of Warrant Shares as to which this Warrant is being exercised (which may take the form of a “cashless exercise” if so indicated in the Exercise Notice pursuant to Section 10 below). The date on which the Notice of Exercise is delivered to the Company (as determined in accordance with the notice provisions hereof) is an “*Exercise Date*” provided, that if the Exercise Price is not delivered on or before one (1) Trading Day following the date of delivery of the Exercise Notice, the Exercise Date shall be deemed to be one (1) Trading Day following the date of that the Exercise Price is delivered to the Company. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. The Holder shall not be required to deliver the original Warrant in order to effect an exercise hereunder. Execution and delivery of the Exercise Notice shall have the same effect as cancellation of the original Warrant and issuance of a New Warrant evidencing the right to purchase the remaining number of Warrant Shares, if any. The aggregate exercise price of this Warrant, except for the Exercise Price, was pre-funded to the Company on or before the Original Issue Date, and consequently no additional consideration (other than the Exercise Price) shall be required by to be paid by the Holder to effect any exercise of this Warrant. The Holder shall not be entitled to the return or refund of all, or any portion, of such pre-funded exercise price under any circumstance or for any reason whatsoever.

## 5. Delivery of Warrant Shares.

(a) Upon exercise of this Warrant, the Company shall promptly (but in no event later than two (2) Trading Days after the Exercise Date), upon the request of the Holder, credit or instruct the Transfer Agent to credit such aggregate number of shares of Common Stock to which the Holder is entitled pursuant to such exercise to the Holder's or its designee's balance account with The Depository Trust Company ("DTC") through its Deposit / Withdrawal At Custodian system, or if the Transfer Agent is not participating in the Fast Automated Securities Transfer Program (the "*FAST Program*") or if the certificates are required to bear a legend regarding restriction on transferability, issue and dispatch by overnight courier to the address as specified in the Exercise Notice, a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of shares of Common Stock to which the Holder is entitled pursuant to such exercise. The Holder, or any natural person or legal entity (each, a "*Person*") so designated by the Holder to receive Warrant Shares, shall be deemed to have become the holder of record of such Warrant Shares as of the time of delivery of the Exercise Notice on the Exercise Date, irrespective of the date such Warrant Shares are credited to the Holder's DTC account or the date of delivery of the certificates evidencing such Warrant Shares, as the case may be. While this Warrant remains outstanding, the Company shall maintain a transfer agent that participates in the FAST Program.

(b) If by the close of the fifth (5th) Trading Day after the Exercise Date, the Company fails to deliver to the Holder a certificate representing the required number of Warrant Shares in the manner required pursuant to Section 5(a) or fails to credit the Holder's balance account with DTC for such number of Warrant Shares to which the Holder is entitled, and if after such second (2nd) Trading Day and prior to the receipt of such Warrant Shares, the Holder purchases (in an open market transaction or otherwise that reflects prevailing market prices) shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise to unwind its commercially reasonable hedge position in a commercially reasonable manner (a "*Buy-In*"), then the Company shall, within two (2) Trading Days after the Holder's request and in the Holder's sole and absolute discretion, either (1) pay in cash to the Holder an amount equal to the Holder's total purchase price (including commercially reasonable brokerage commissions, if any) for the shares of Common Stock so purchased, at which point the Company's obligation to deliver such certificate (and to issue such Warrant Shares) shall terminate or (2) promptly honor its obligation to deliver to the Holder a certificate or certificates representing such Warrant Shares and pay cash to the Holder in an amount equal to the excess (if any) of Holder's total purchase price (including commercially reasonable brokerage commissions, if any) for the shares of Common Stock so purchased in the Buy-In over the product of (A) the number of shares of Common Stock purchased in the Buy-In, times (B) the Closing Sale Price of a share of Common Stock on the Exercise Date.

(c) To the extent permitted by law and subject to Section 5(b), the Company's obligations to issue and deliver Warrant Shares in accordance with and subject to the terms hereof (including the limitations set forth in Section 11 below) are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by the Holder or any other Person of any obligation to the Company or any violation or alleged violation of law by the Holder or any other Person, and irrespective of any other circumstance that might otherwise limit such obligation of the Company to the Holder in connection with the issuance of Warrant Shares. Subject to Section 5(b), nothing herein shall limit the Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver certificates representing shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

6. Charges, Taxes and Expenses. Issuance and delivery of certificates for shares of Common Stock upon exercise of this Warrant shall be made without charge to the Holder for any issue or transfer tax, transfer agent fee or other incidental tax or expense (excluding any applicable stamp duties) in respect of the issuance of such certificates, all of which taxes and expenses shall be paid by the Company; *provided, however*, that the Company shall not be required to pay any tax that may be payable in respect of any transfer involved in the registration of any certificates for Warrant Shares or the Warrants in a name other than that of the Holder or an Affiliate thereof. The Holder shall

be responsible for all other tax liability that may arise as a result of holding or transferring this Warrant or receiving Warrant Shares upon exercise hereof.

7. Replacement of Warrant. If this Warrant is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation hereof, or in lieu of and substitution for this Warrant, a New Warrant, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction (in such case) and, in each case, a customary and reasonable indemnity (but not the posting of any surety or other bond), if requested by the Company. Applicants for a New Warrant under such circumstances shall also comply with such other reasonable regulations and procedures and pay such other reasonable third-party costs as the Company may prescribe. If a New Warrant is requested as a result of a mutilation of this Warrant, then the Holder shall deliver such mutilated Warrant to the Company as a condition precedent to the Company's obligation to issue the New Warrant.

8. Reservation of Warrant Shares. The Company covenants that it will, at all times while this Warrant is outstanding, reserve and keep available out of the aggregate of its authorized but unissued and otherwise unreserved Common Stock, solely for the purpose of enabling it to issue Warrant Shares upon exercise of this Warrant as herein provided, the number of Warrant Shares that are initially issuable and deliverable upon the exercise of this entire Warrant, free from preemptive rights or any other contingent purchase rights of persons other than the Holder (taking into account the adjustments and restrictions of Section 9). The Company covenants that all Warrant Shares so issuable and deliverable shall, upon issuance and the payment of the applicable Exercise Price in accordance with the terms hereof, be duly and validly authorized, issued and fully paid and non-assessable. The Company will take all such action as may be reasonably necessary to assure that such shares of Common Stock may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of any securities exchange or automated quotation system upon which the Common Stock may be listed. The Company further covenants that it will not, without the prior written consent of the Holder, take any actions to increase the par value of the Common Stock at any time while this Warrant is outstanding.

9. Certain Adjustments. The Exercise Price and number of Warrant Shares issuable upon exercise of this Warrant are subject to adjustment from time to time as set forth in this Section 9.

(a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding, (i) pays a stock dividend on its Common Stock or otherwise makes a distribution on any class of capital stock issued and outstanding on the Original Issue Date and in accordance with the terms of such stock on the Original Issue Date or as amended, as described in the Registration Statement, that is payable in shares of Common Stock, (ii) subdivides its outstanding shares of Common Stock into a larger number of shares of Common Stock, (iii) combines its outstanding shares of Common Stock into a smaller number of shares of Common Stock or (iv) issues by reclassification of shares of capital stock any additional shares of Common Stock of the Company, then in each such case the Exercise Price shall be multiplied by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately before such event and the denominator of which shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to clause (i) of this paragraph shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution, provided, however, that if such record date shall have been fixed and such dividend is not fully paid on the date fixed therefor, the Exercise Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Exercise Price shall be adjusted pursuant to this paragraph as of the time of actual payment of such dividends. Any adjustment pursuant to clause (ii) or (iii) of this paragraph shall become effective immediately after the effective date of such subdivision or combination.

(b) Pro Rata Distributions. If the Company, at any time while this Warrant is outstanding, distributes to all holders of Common Stock for no consideration (i) evidences of its indebtedness, (ii) any security (other than a distribution of Common Stock covered by the preceding paragraph) or (iii) rights or warrants to subscribe for or purchase any security, or (iv) cash or any other asset (in each case, "*Distributed Property*"), then, upon any exercise of this Warrant that occurs after the record date fixed for determination of stockholders entitled to receive such distribution, the Holder shall be entitled to receive, in addition to the Warrant Shares otherwise issuable upon such exercise (if applicable), the Distributed Property that such Holder would have been entitled to receive in respect of

such number of Warrant Shares had the Holder been the record holder of such Warrant Shares immediately prior to such record date without regard to any limitation on exercise contained therein. The Company covenants that it will, at all times while this Warrant is outstanding, reserve and keep available all Distributed Property that the Holder shall be entitled to receive hereunder, solely for the purpose of fulfilling its obligations pursuant to this Section 9(b).

(c) Fundamental Transactions. If, at any time while this Warrant is outstanding (i) the Company effects any merger or consolidation of the Company with or into another Person, in which the Company is not the surviving entity and in which the stockholders of the Company immediately prior to such merger or consolidation do not own, directly or indirectly, at least 50% of the voting power of the surviving entity immediately after such merger or consolidation, (ii) the Company effects any sale to another Person of all or substantially all of its assets in one transaction or a series of related transactions, (iii) pursuant to any tender offer or exchange offer (whether by the Company or another Person), holders of capital stock tender shares representing more than 50% of the voting power of the capital stock of the Company and the Company or such other Person, as applicable, accepts such tender for payment, (iv) the Company consummates a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than the 50% of the voting power of the capital stock of the Company (except for any such transaction in which the stockholders of the Company immediately prior to such transaction maintain, in substantially the same proportions, the voting power of such Person immediately after the transaction) or (v) the Company effects any reclassification of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (other than as a result of a subdivision or combination of shares of Common Stock covered by Section 9(a) above) (in any such case, a “*Fundamental Transaction*”), then following such Fundamental Transaction the Holder shall have the right to receive, upon exercise of this Warrant, the same amount and kind of securities, cash or property as it would have been entitled to receive upon the occurrence of such Fundamental Transaction if it had been, immediately prior to such Fundamental Transaction, the holder of the number of Warrant Shares then issuable upon exercise in full of this Warrant without regard to any limitations on exercise contained herein (the “*Alternate Consideration*”). The Company shall not effect any Fundamental Transaction in which the Company is not the surviving entity or the Alternate Consideration includes securities of another Person unless (i) the Alternate Consideration is solely cash, in which case the Warrant will be deemed automatically exercised in full in exchange for such cash consideration pursuant to the “cashless exercise” provisions in Section 10 below upon the consummation of the Fundamental Transaction or (ii) prior to or simultaneously with the consummation thereof, any successor to the Company, surviving entity or other Person (including any purchaser of assets of the Company) shall assume the obligation to deliver to the Holder such Alternate Consideration as, in accordance with the foregoing provisions, the Holder may be entitled to receive, and the other obligations under this Warrant. The provisions of this paragraph (c) shall similarly apply to subsequent transactions analogous of a Fundamental Transaction type.

(d) Number of Warrant Shares. Simultaneously with any adjustment to the Exercise Price pursuant to Section 9 (including any adjustment to the Exercise Price that would have been effected but for the final sentence in this paragraph (d)), the number of Warrant Shares that may be purchased upon exercise of this Warrant shall be increased or decreased proportionately, so that after such adjustment the aggregate Exercise Price payable hereunder for the increased or decreased number of Warrant Shares shall be the same as the aggregate Exercise Price in effect immediately prior to such adjustment. Notwithstanding the foregoing, in no event may the Exercise Price be adjusted below the par value of the Common Stock then in effect.

(e) Calculations. All calculations under this Section 9 shall be made to the nearest one-tenth of one cent or the nearest share, as applicable.

(f) Notice of Adjustments. Upon the occurrence of each adjustment pursuant to this Section 9, the Company at its expense will, at the written request of the Holder, promptly compute such adjustment, in good faith, in accordance with the terms of this Warrant and prepare a certificate setting forth such adjustment, including a statement of the adjusted Exercise Price and adjusted number or type of Warrant Shares or other securities issuable upon exercise of this Warrant (as applicable), describing the transactions giving rise to such adjustments and showing in detail the facts upon which such adjustment is based. Upon written request, the Company will promptly deliver a copy of each such certificate to the Holder and to the Transfer Agent.

(g) Notice of Corporate Events. If, while this Warrant is outstanding, the Company (i) declares a dividend or any other distribution of cash, securities or other property in respect of its Common Stock, including, without limitation, any granting of rights or warrants to subscribe for or purchase any capital stock of the Company or any subsidiary, (ii) authorizes or approves, enters into any agreement contemplating or solicits stockholder approval for any Fundamental Transaction or (iii) authorizes the voluntary dissolution, liquidation or winding up of the affairs of the Company, then, except if such notice and the contents thereof shall be deemed to constitute material non-public information, the Company shall deliver to the Holder a notice of such transaction at least ten (10) days prior to the applicable record or effective date on which a Person would need to hold Common Stock in order to participate in or vote with respect to such transaction; *provided, however*, that the failure to deliver such notice or any defect therein shall not affect the validity of the corporate action required to be described in such notice. In the event such notice and the contents thereof shall be deemed to constitute material non-public information, the Company shall (on the same time frame set forth in the immediately prior sentence) offer the Holder the ability to sign a confidentiality agreement related thereto sufficient to allow the Holder to receive such notice, and the Company shall deliver such notice immediately upon execution of such confidentiality agreement. In addition, if while this Warrant is outstanding, the Company authorizes or approves, enters into any agreement contemplating or solicits stockholder approval for any Fundamental Transaction contemplated by Section 9(c), other than a Fundamental Transaction under clause (iii) of Section 9(c), the Company shall deliver to the Holder a notice of such Fundamental Transaction at least thirty (30) days prior to the date such Fundamental Transaction is consummated. Holder agrees to maintain any information disclosed pursuant to this Section 9(g) in confidence until such information is publicly available, and shall comply with applicable law with respect to trading in the Company's securities following receipt any such information.

10. Payment of Exercise Price. Notwithstanding anything contained herein to the contrary, the Holder may, in its sole discretion, satisfy its obligation to pay the Exercise Price through a "cashless exercise" (with respect to which the Company will preserve the availability of the exemption from registration in Section 3(a)(9) of the Securities Act), in which event the Company shall issue to the Holder the number of Warrant Shares determined as follows:

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

where:

"X" equals the number of Warrant Shares to be issued to the Holder;

"Y" equals the total number of Warrant Shares with respect to which this Warrant is then being exercised;

"A" equals (i) the last Closing Sale Price of the shares of Common Stock (as reported by Bloomberg Financial Markets) on the Trading Day immediately preceding the Exercise Date if the Exercise Notice is delivered prior to market close on the Exercise Date, or (ii) the last Closing Sale Price of the shares of Common Stock (as reported by Bloomberg Financial Markets) on the Exercise Date if the Exercise Notice is delivered following market close on the Exercise Date; and

"B" equals the Exercise Price then in effect for the applicable Warrant Shares at the time of such exercise.

For purposes of Rule 144 promulgated under the Securities Act, it is intended, understood and acknowledged that the Warrant Shares issued in a "cashless exercise" transaction shall be deemed to have been acquired by the Holder, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised, and the holding period for the Warrant Shares shall be deemed to have commenced, on the date this Warrant was originally issued (provided that the Commission continues to take the position that such treatment is proper at the time of such exercise). In the event that the Registration Statement or another registration statement registering the issuance of Warrant Shares is, for any reason, not effective at the time of exercise of this Warrant, then the Warrant may only be exercised through a cashless exercise, as set forth in this Section 10. Except as set forth in Section 5(b) (Buy-In remedy) and Section 12 (payment of cash in lieu of fractional shares), in no event will the exercise of this Warrant be settled in cash. For the avoidance of doubt, in the event that the Registration Statement or another registration statement registering the issuance of the Warrant Shares is, for any reason, not effective at the time of exercise of

this Warrant, then a cashless exercise pursuant to this Section 10 in exchange for unregistered Warrant Shares in accordance with Section 3(a)(9) of the Securities Act shall also be permitted.

11. Limitations on Exercise.

(a) Notwithstanding anything to the contrary contained herein, the Company shall not effect any exercise of this Warrant, and the Holder shall not be entitled to exercise this Warrant for a number of Warrant Shares in excess of that number of Warrant Shares which, upon giving effect to such exercise, would cause (i) the aggregate number of shares of Common Stock beneficially owned by the Holder and its Affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Exchange Act (such as any other members of a Section 13(d) "group"), to exceed 9.99% (the "Maximum Percentage") of the total number of issued and outstanding shares of Common Stock of the Company following such exercise, or (ii) the combined voting power of the securities of the Company beneficially owned by the Holder and its Affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Exchange Act (such as any other members of a Section 13(d) "group") to exceed 9.99% of the combined voting power of all of the securities of the Company then outstanding following such exercise. For purposes of this Warrant, in determining the number of outstanding shares of Common Stock, the Holder may rely on the number of outstanding shares of Common Stock as reflected in (x) the Company's most recent Form 10-Q or Form 10-K, as the case may be, filed with the Commission prior to the date hereof, (y) a more recent public announcement by the Company or (z) any other notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written request of the Holder, the Company shall within three (3) Trading Days confirm in writing or by electronic mail to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder since the date as of which such number of outstanding shares of Common Stock was reported. By written notice to the Company, the Holder may from time to time increase or decrease the Maximum Percentage to any other percentage not in excess of 19.99% specified in such notice; provided that any such increase will not be effective until the sixty-first (61st) day after such notice is delivered to the Company. For purposes of this Section 11(a), the aggregate number of shares of Common Stock or voting securities beneficially owned by the Holder and its Affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Exchange Act (such as any other members of a Section 13(d) "group") shall include the shares of Common Stock issuable upon the exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (x) exercise of the remaining unexercised and non-cancelled portion of this Warrant by the Holder and (y) exercise or conversion of the unexercised, non-converted or non-cancelled portion of any other securities of the Company that do not have voting power (including without limitation any securities of the Company which would entitle the holder thereof to acquire at any time Common Stock, including without limitation any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock), is subject to a limitation on conversion or exercise analogous to the limitation contained herein and is beneficially owned by the Holder or any of its Affiliates and other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Exchange Act (such as any other members of a Section 13(d) "group"), it being acknowledged by the Holder that the Company is not representing to such Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and such Holder is solely responsible for any schedules required to be filed in accordance therewith. Any provision of this Warrant to the contrary notwithstanding, the Holder hereby releases the Company and agrees to hold the Company harmless from all liability resulting from the Holder's ownership exceeding the Maximum Percentage as a result of the exercise of this Warrant pursuant to its terms.

(b) This Section 11 shall not restrict the number of shares of Common Stock which a Holder may receive or beneficially own in order to determine the amount of securities or other consideration that such Holder may receive in the event of a Fundamental Transaction as contemplated in Section 9(c) of this Warrant.

12. No Fractional Shares. No fractional Warrant Shares will be issued in connection with any exercise of this Warrant. In lieu of any fractional shares that would otherwise be issuable, the number of Warrant Shares to be issued

shall be rounded down to the next whole number and the Company shall pay the Holder in cash the fair market value (based on the Closing Sale Price) for any such fractional shares.

13. Notices. Any and all notices or other communications or deliveries hereunder (including, without limitation, any Exercise Notice) shall be in writing and shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via facsimile or confirmed e-mail at the facsimile number or e-mail address specified in the books and records of the Transfer Agent prior to 5:30 P.M., New York City time, on a Trading Day so long as the sender of an e-mail has not received an automated notice of delivery failure from the proposed recipient's computer server, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile or confirmed e-mail at the facsimile number or e-mail address specified in the books and records of the Transfer Agent on a day that is not a Trading Day or later than 5:30 P.M., New York City time, on any Trading Day so long as the sender of an e-mail has not received an automated notice of delivery failure from the proposed recipient's computer server, (iii) the Trading Day following the date of mailing, if sent by nationally recognized overnight courier service specifying next business day delivery, or (iv) upon actual receipt by the Person to whom such notice is required to be given, if by hand delivery. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any subsidiaries, the Company shall comply with its disclosure obligations under Regulation FD by simultaneously filing or publishing such notice on a Current Report on Form 8-K, a press release, or otherwise, or ensuring that the Holder is bound by a confidentiality obligation to which the Holder has agreed; provided, however, that nothing in this section shall obligate or require the Holder to agree to a confidentiality obligation.

14. Warrant Agent. The Company shall initially serve as warrant agent under this Warrant. Upon thirty (30) days' notice to the Holder, the Company may appoint a new warrant agent. Any corporation into which the Company or any new warrant agent may be merged or any corporation resulting from any consolidation to which the Company or any new warrant agent shall be a party or any corporation to which the Company or any new warrant agent transfers substantially all of its corporate trust or shareholders services business shall be a successor warrant agent under this Warrant without any further act. Any such successor warrant agent shall promptly cause notice of its succession as warrant agent to be mailed (by first class mail, postage prepaid) to the Holder at the Holder's last address as shown on the Warrant Register. Notwithstanding anything to the contrary contained herein or in any warrant agency agreement that the Company may enter into in the future, the Holder shall be entitled to elect to receive, or continue to hold, this Warrant in certificated form, in which case the terms set forth in any such warrant agency agreement shall not apply to this Warrant.

15. Miscellaneous.

(a) No Rights as a Stockholder. The Holder, solely in such Person's capacity as a holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of share capital of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in such Person's capacity as the Holder of this Warrant, any of the rights of a stockholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, amalgamation, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which such Person is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a stockholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company.

(b) Authorized Shares.

(i) Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate or articles of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such

actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (a) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (b) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and non-assessable Warrant Shares upon the exercise of this Warrant, and (c) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof as may be necessary to enable the Company to perform its obligations under this Warrant.

(ii) Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

(c) Successors and Assigns. Subject to the restrictions on transfer set forth in this Warrant and compliance with applicable securities laws, this Warrant may be assigned by the Holder. This Warrant may not be assigned by the Company without the written consent of the Holder, except to a successor in the event of a Fundamental Transaction. This Warrant shall be binding on and inure to the benefit of the Company and the Holder and their respective successors and assigns. Subject to the preceding sentence, nothing in this Warrant shall be construed to give to any Person other than the Company and the Holder any legal or equitable right, remedy or cause of action under this Warrant. This Warrant may be amended only in writing signed by the Company and the Holder, or their successors and assigns.

(d) Amendment and Waiver. Except as otherwise provided herein, the provisions of the Warrants may be amended and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Holders of Warrants representing no less than a majority of the Warrant Shares obtainable upon exercise of the Warrants then outstanding.

(e) Acceptance. Receipt of this Warrant by the Holder shall constitute acceptance of and agreement to all of the terms and conditions contained herein.

(f) Governing Law; Jurisdiction. ALL QUESTIONS CONCERNING THE CONSTRUCTION, VALIDITY, ENFORCEMENT AND INTERPRETATION OF THIS WARRANT SHALL BE GOVERNED BY AND CONSTRUED AND ENFORCED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK WITHOUT REGARD TO THE PRINCIPLES OF CONFLICTS OF LAW THEREOF. EACH OF THE COMPANY AND THE HOLDER HEREBY IRREVOCABLY SUBMITS TO THE EXCLUSIVE JURISDICTION OF THE STATE AND FEDERAL COURTS SITTING IN THE CITY OF NEW YORK, BOROUGH OF MANHATTAN, FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION HERewith OR WITH ANY TRANSACTION CONTEMPLATED HEREBY OR DISCUSSED HEREIN (INCLUDING WITH RESPECT TO THE ENFORCEMENT OF ANY OF THE TRANSACTION DOCUMENTS), AND HEREBY IRREVOCABLY WAIVES, AND AGREES NOT TO ASSERT IN ANY SUIT, ACTION OR PROCEEDING, ANY CLAIM THAT IT IS NOT PERSONALLY SUBJECT TO THE JURISDICTION OF ANY SUCH COURT. EACH OF THE COMPANY AND THE HOLDER HEREBY IRREVOCABLY WAIVES PERSONAL SERVICE OF PROCESS AND CONSENTS TO PROCESS BEING SERVED IN ANY SUCH SUIT, ACTION OR PROCEEDING BY MAILING A COPY THEREOF VIA REGISTERED OR CERTIFIED MAIL OR OVERNIGHT DELIVERY (WITH EVIDENCE OF DELIVERY) TO SUCH PERSON AT THE ADDRESS IN EFFECT FOR NOTICES TO IT AND AGREES THAT SUCH SERVICE SHALL CONSTITUTE GOOD AND SUFFICIENT SERVICE OF PROCESS AND NOTICE THEREOF. NOTHING CONTAINED HEREIN SHALL BE DEEMED TO LIMIT IN ANY WAY ANY RIGHT TO SERVE PROCESS IN ANY MANNER PERMITTED BY LAW. EACH OF THE COMPANY AND THE HOLDER HEREBY WAIVES ALL RIGHTS TO A TRIAL BY JURY.

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

(h) Severability. In case any one or more of the provisions of this Warrant shall be invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions of this Warrant shall not in any way be affected or impaired thereby, and the Company and the Holder will attempt in good faith to agree upon a valid and enforceable provision which shall be a commercially reasonable substitute therefor, and upon so agreeing, shall incorporate such substitute provision in this Warrant.

(i) Interpretation. For purposes of this Warrant, (a) the words “include,” “includes” and “including” are deemed to be followed by the words “without limitation”; (b) the word “or” is not exclusive; and (c) the words “herein,” “hereof,” “hereby,” “hereto” and “hereunder” refer to this Warrant as a whole. Unless the context otherwise requires, references herein: (x) to sections and schedules mean the sections of, and schedules attached to, this Warrant; (y) to an agreement, instrument, or other document means such agreement, instrument, or other document (as amended, supplemented and modified from time to time to the extent permitted by the provisions thereof/without regard to subsequent amendments, supplements, and modifications thereto); and (z) to a statute means such statute (as amended from time to time and includes/enforced at the time and date of this Warrant becoming effective) and does not include any successor legislation thereto and any regulations promulgated thereunder. This Warrant shall be construed without regard to any presumption or rule requiring construction or interpretation against the party drafting an instrument or causing any instrument to be drafted. The schedules referred to herein shall be construed with, and as an integral part of, this Warrant to the same extent as if they were set forth verbatim herein. All references to “\$” or “dollars” mean the lawful currency of the United States of America. Whenever the singular is used in this Warrant, the same shall include the plural, and whenever the plural is used herein, the same shall include the singular, where appropriate.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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

**COMPANY:**

CONCERT PHARMACEUTICALS, INC.

By: \_\_\_\_\_  
Name:  
Title:

[Signature Page to Warrant]

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SCHEDULE 1

FORM OF EXERCISE NOTICE

[To be executed by the Holder to purchase shares of Common Stock under the Warrant]

Ladies and Gentlemen:

(1) The undersigned is the Holder of Warrant No. \_\_ (the "*Warrant*") issued by Concert Pharmaceuticals, Inc., a Delaware corporation (the "*Company*"). Capitalized terms used herein and not otherwise defined herein have the respective meanings set forth in the Warrant.

(2) The undersigned hereby exercises its right to purchase Warrant Shares pursuant to the Warrant.

(3) The Holder intends that payment of the Exercise Price shall be made as (check one):

Cash Exercise

"Cashless Exercise" under Section 10 of the Warrant

(4) If the Holder has elected a Cash Exercise, the Holder shall pay the sum of \$ \_\_\_\_\_ in immediately available funds to the Company in accordance with the terms of the Warrant.

(5) Pursuant to this Exercise Notice, the Company shall deliver to the Holder Warrant Shares determined in accordance with the terms of the Warrant.

(6) By its delivery of this Exercise Notice, the undersigned represents and warrants to the Company that in giving effect to the exercise evidenced hereby the Holder will not beneficially own in excess of the number of shares of Common Stock (as determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended) permitted to be owned under Section 11(a) of the Warrant to which this notice relates.

Dated: \_\_\_\_\_

Name of Holder: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

(Signature must conform in all respects to name of Holder as specified on the face of the Warrant)

January 28, 2020

Concert Pharmaceuticals, Inc.  
65 Hayden Avenue, Suite 3000N  
Lexington, MA 02421

**Re: Securities Registered under Registration Statement on Form S-3**

We have acted as counsel to you in connection with your filing of a Registration Statement on Form S-3 (File No. 333-223334) (as amended or supplemented, the "Registration Statement") filed on March 1, 2018 with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration of the offer by Concert Pharmaceuticals, Inc., a Delaware corporation (the "Company") of up to \$250,000,000 of any combination of securities of the types specified therein. The Registration Statement was declared effective by the Commission on March 7, 2018. Reference is made to our opinion letter dated March 1, 2018 and included as Exhibit 5.1 to the Registration Statement. We are delivering this supplemental opinion letter in connection with the prospectus supplement (the "Prospectus Supplement") filed on January 28, 2020 by the Company with the Commission pursuant to Rule 424 under the Securities Act. The Prospectus Supplement relates to the offering by the Company of up to 5,735,283 shares of the Company's Common Stock, par value \$0.001 per share (the "Shares") and warrants (the "Warrants" and together with the Shares, the "Securities") to purchase 1,800,000 shares of Common Stock, each covered by the Registration Statement. The Shares include an over-allotment option granted to the underwriters of the offering to purchase 982,863 Shares. The Securities are being sold to the several underwriters named in, and pursuant to, an underwriting agreement among the Company and such underwriters (the "Underwriting Agreement").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinion set forth below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinion set forth below, on certificates of officers of the Company.

The opinion set forth below is limited to the Delaware General Corporation Law.

Based on the foregoing, we are of the opinion that the Securities have been duly authorized and, upon issuance and delivery against payment therefor in accordance with the terms of the Underwriting Agreement, the Securities will be validly issued, fully paid and non-assessable.

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We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement and to the references to our firm under the caption “Legal Matters” in the Registration Statement. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/S/ GOODWIN PROCTER LLP

GOODWIN PROCTER LLP



**For additional information contact:**

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[ir@concertpharma.com](mailto:ir@concertpharma.com)

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**FOR IMMEDIATE RELEASE**

**Concert Pharmaceuticals Announces Pricing of Public Offering**

**Lexington, MA (January 28, 2020)** – Concert Pharmaceuticals, Inc. (NASDAQ: CNCE) today announced the pricing of an underwritten public offering of 4,752,420 shares of its common stock at a public offering price of \$9.92 per share. In addition, and in lieu of common stock, Concert is offering to a certain existing investor pre-funded warrants to purchase up to an aggregate of 1,800,000 shares of common stock at a purchase price of \$9.919 per pre-funded warrant, which represents the per share public offering price for the common stock less the \$0.001 per share exercise price for each pre-funded warrant. The gross proceeds to Concert before deducting underwriting discounts and commissions and estimated offering expenses payable by Concert, are expected to be approximately \$65.0 million. Concert has granted the underwriters a 30-day option to purchase up to an additional 982,863 shares of common stock at the offering price, less the underwriting discounts and commissions.

All securities in the offering are being sold by Concert. The offering is expected to close on or about January 30, 2020, subject to the satisfaction of customary closing conditions.

Concert intends to use the net proceeds from the offering, together with its current cash and cash equivalents, to advance the clinical program for CTP-543 into Phase 3 development for alopecia areata, fund the clinical development of CTP-692 through Phase 2 for schizophrenia, and support its pipeline development, working capital needs and other general corporate purposes.

Jefferies is acting as sole book-running manager for the offering. Mizuho Securities and JMP Securities are acting as lead managers, and H.C. Wainwright & Co. is acting as co-manager for the offering.

The offering is being made only by means of a written prospectus supplement and prospectus forming part of a shelf registration statement previously filed with the Securities and Exchange Commission (SEC) and declared effective on March 7, 2018. A preliminary prospectus supplement relating to the offering was filed with the SEC. The final prospectus supplement and accompanying prospectus relating to the offering will be filed with the SEC and will be available on the SEC's website at [www.sec.gov](http://www.sec.gov). Copies of the final prospectus supplement and accompanying prospectus may also be obtained, when available, by contacting

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Jefferies LLC, Attention: Equity Syndicate Prospectus Department, 520 Madison Avenue, 2nd Floor, New York, NY 10022, by telephone at (877) 821-7388, or by email at [prospectus\\_department@jefferies.com](mailto:prospectus_department@jefferies.com).

This press release shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of, these securities in any state or other 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 other jurisdiction.

#### **About Concert**

Concert Pharmaceuticals is a clinical stage biopharmaceutical company focused on applying its DCE Platform® (deuterated chemical entity platform) to create novel medicines designed to treat serious diseases and address unmet patient needs. The Company's approach starts with previously studied compounds, including approved drugs, in which deuterium substitution has the potential to enhance clinical safety, tolerability or efficacy. Concert's pipeline of innovative medicines targets autoimmune diseases and central nervous systems (CNS) disorders.

#### **Cautionary Note on Forward Looking Statements**

Any statements in this press release about the anticipated final terms, timing and completion of the proposed offering and other statements containing the words "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "would" and similar expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including: whether or not Concert will be able to raise capital through the sale of common stock, the financial terms of the proposed offering, Concert's ability to satisfy customary closing conditions related to the proposed offering, market and other conditions, and other factors discussed in the "Risk Factors" section of our most recent Quarterly Report on Form 10-Q filed with the SEC, in the preliminary prospectus supplement related to the offering filed with the SEC on January 28, 2020 and in other filings that we make with the SEC. In addition, any forward-looking statements included in this press release represent our views only as of the date of this release and should not be relied upon as representing our views as of any subsequent date. We specifically disclaim any obligation to update any forward-looking statements included in this press release.