UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

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

November 14, 2017
Date of report (Date of earliest event reported)

Leap Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**001-37990**	**27-4412575**
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

47 Thorndike Street, Suite B1-1 **Cambridge, MA**	**02141**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code **(617) 714-0360**

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

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

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425).

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12).

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b)).

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Emerging growth company x

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. o

Item 1.01 Entry into a Material Definitive Agreement.

On November 14, 2017, Leap Therapeutics, Inc. (the "Company") entered into purchase agreements (collectively, the "Purchase Agreement") with certain existing and new institutional accredited investors and strategic partners (collectively, the "Purchasers"), including HealthCare Ventures IX, L.P. and Eli Lilly and Company. Each of the Purchase Agreements was on terms and conditions substantially similar to each other Purchase Agreement and pursuant to such Purchase Agreements, the Company, in a private placement, agreed to issue and sell to the Purchasers an aggregate of 2,958,094 shares (the "Shares") of unregistered common stock, par value $0.001 per share, of the Company (the "Common Stock"), at a price per share of $6.085, each share issued with a warrant (the "Warrants") to purchase one share of Common Stock (the "Warrant Shares") at an exercise price of $6.085 (the "Exercise Price") with an

exercise period expiring seven years after closing (the "Term"), for gross proceeds of approximately $18.0 million (the "Private Placement"). If all of the Warrants are exercised at the Exercise Price during the Term, the Company will receive proceeds of approximately $18.0 million in cash and will issue an aggregate of 2,958,094 Warrant Shares.

Subject to stockholder approval of such provisions, the Warrants include full ratchet anti-dilution protection provisions. Therefore, the Company expects to hold a special meeting of stockholders for the stockholders to approve the full ratchet anti-dilution protection. If the stockholders do not approve of the full ratchet anti-dilution protection provisions, such provisions shall be of no force and effect. In connection with such approval, the Company, on November 14, 2017, entered into a voting agreement with HealthCare Ventures VIII, L.P., HealthCare Ventures IX, L.P. and HealthCare Ventures Strategic Fund, L.P. (collectively, the "HealthCare Parties"), which together hold a majority of the shares entitled to vote at the special meeting of stockholders, pursuant to which the HealthCare Parties agreed to vote all of their beneficially owned shares in favor of the any approval proposed at the special meeting of stockholders.

Raymond James & Associates, Inc. and Ladenburg Thalmann & Co. Inc. acted as the placement agents (the "Placement Agents") for the Private Placement pursuant to a letter agreement with the Company dated as of November 14, 2017 (the "Placement Agent Agreement"). Pursuant to the Placement Agency Agreement, the Company agreed to pay the Placement Agents a fee equal to 2.2% of the aggregate gross proceeds from the Private Placement plus the reimbursement of certain expenses. The Company will use the net proceeds from the Private Placement for general corporate purposes. It is anticipated that the Offering will raise gross proceeds to the Company in the amount of approximately $18.0 million and net proceeds to the Company in the amount of

approximately $17.3 million, which is after deducting commissions to the Company's placement agents and estimated expenses of approximately $0.7 million in the aggregate.

Pursuant to the terms of the Purchase Agreements, the Company will be obligated to prepare and file with the Securities and Exchange Commission (the "SEC") a registration statement (the "Registration Statement") to register for resale the Shares and the Warrant Shares on or prior to the date 30 days following the closing of the Private Placement, and use its best commercially reasonable efforts, subject to receipt of necessary information from the Purchasers, to cause the SEC to declare the Registration Statement effective within 60 days following the closing of the Private Placement or, if the Registration Statement is selected for review by the SEC, within 90 days following the closing of the Private Placement.

The foregoing is a summary of the terms of the Purchase Agreements, the Placement Agency Agreement, the Warrants, and the Voting Agreement and does not purport to be complete. A list of the purchasers and a list of the warrant holders immediately follows the form of Purchase Agreement and the form of Warrant, respectively, that are attached hereto. This summary is qualified in its entirety by reference to the full text of each of the form of Purchase Agreement, the Placement Agency Agreement, the form of Warrant, and the Voting Agreement, each of which is attached hereto as Exhibits 10.1, 10.2, 4.1 and 10.3, respectively, and each of which is incorporated by reference herein.

The representations, warranties and covenants contained in the Purchase Agreement were made solely for the benefit of the parties to the Purchase Agreements and may be subject to limitations agreed upon by the contracting parties. Accordingly, the Purchase Agreements are incorporated herein by reference only to provide investors with information regarding the terms of the Purchase Agreements and not to provide investors with any other factual information regarding the Company or its business, and should be read in conjunction with the disclosures in the Company's periodic reports and other filings with the SEC.

Item 3.02 Unregistered Sales of Equity Securities.

Pursuant to the Private Placement described in Item 1.01 of this Current Report on Form 8-K, which description is incorporated by reference into this Item 3.02 in its entirety, on November 14, 2017, the Company sold the Shares and the Warrants to the Purchasers in reliance on the exemption from the registration requirements of the Securities Act of 1933, as amended (the "Securities Act") afforded by Section 4(a)(2) of the Securities Act. The sale of the Shares and the Warrants pursuant to the Purchase Agreement has not been registered under the Securities Act or any state securities laws. The Shares, the Warrants and the Warrant Shares may not be offered or sold in the United States absent registration or an exemption from registration under the Securities Act and any applicable state securities laws. Neither this Current Report on Form 8-K nor any exhibit attached hereto is an offer to sell or the solicitation of an offer to buy shares of Common Stock or other securities of the Company.

The Purchase Agreements, the Placement Agency Agreement, and the Warrants, each of which is attached hereto as Exhibits 10.1, 10.2 and 4.1, respectively, are incorporated by reference herein.

Item 8.01 Other Events.

On November 15, 2017 the Company issued a press release announcing the Offering. A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit Number	Description
4.1	Form of Warrant, dated as of November 14, 2017 by and among Leap Therapeutics, Inc. and the purchasers identified on the schedule thereto.
10.1	Form of Purchase Agreement, dated as of November 14, 2017, by and among Leap Therapeutics, Inc. and the purchasers identified on the schedule thereto.
10.2	Placement Agency Agreement, dated as of November 14, 2017, by and between Leap Therapeutics, Inc., Raymond James &

	Associates, Inc. and Ladenburg Thalmann & Co. Inc.
10.3	Voting Agreement, dated as of November 14, 2017, by and among Leap Therapeutics, Inc., HealthCare Ventures VIII, L.P., HealthCare Ventures IX, L.P. and HealthCare Ventures Strategic Fund, L.P.
99.1	Leap Therapeutics, Inc. Press Release dated November 15, 2017

SIGNATURES

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

Leap Therapeutics, Inc.

Dated: November 17, 2017

By: /s/ Christopher K. Mirabelli, Ph.D.
Name: Christopher K. Mirabelli, Ph.D.
Title: Chief Executive Officer and President

Exhibit 4.1

EXECUTION VERSION

THIS WARRANT AND THE UNDERLYING SHARES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**SECURITIES ACT**"), OR UNDER THE SECURITIES LAWS OF ANY STATE. THESE SECURITIES MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED EXCEPT (1) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OR IN A TRANSACTION NOT SUBJECT TO THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT OR (2) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT, IN EACH CASE, IN ACCORDANCE WITH ALL APPLICABLE STATE SECURITIES LAWS AND IN THE CASE OF A TRANSACTION EXEMPT FROM REGISTRATION, UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO IT THAT SUCH TRANSACTION DOES NOT REQUIRE REGISTRATION UNDER THE SECURITIES ACT AND SUCH OTHER APPLICABLE LAWS.

LEAP THERAPEUTICS, INC.

WARRANT TO PURCHASE COMMON STOCK

Warrant No.: 2017-[ ] Number of Warrants: [ ]
Date of Issuance: November [ ], 2017 ("**Issuance Date**")
Expiration Date: November [ ], 2024 ("**Expiration Date**")

Leap Therapeutics, Inc., a Delaware corporation (the "**Company**"), certifies that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, [ ], the registered holder hereof or its permitted assigns (the "**Holder**"), is entitled, subject to the terms and conditions set forth below, to purchase from the Company, at the Exercise Price (as defined below) then in effect, upon surrender of this Warrant to Purchase Common Stock (including any Warrants to Purchase Common Stock issued in exchange, transfer or replacement hereof, the "**Warrant**"), at any time or times on or after the date hereof (the "**Exercisability Date**"), but not after 11:59 p.m., New York Time, on the Expiration Date, [ ] fully paid and nonassessable shares of Common Stock (as defined below), subject to adjustment as provided herein (the "**Warrant Shares**"). Except as otherwise defined herein, capitalized terms in this Warrant shall have the meanings set forth in Section 18.

1. EXERCISE OF WARRANT.

(a) Mechanics of Exercise. Subject to the terms and conditions hereof (including, without limitation, the limitations set forth in Section 9), this Warrant may be exercised by the Holder on any day on or after the Exercisability Date, in whole or in part (but not as to fractional shares), by (i) delivery of a written notice (including via email or fax), in the form attached hereto as Exhibit A (the "**Exercise Notice**"), of the Holder's election to exercise this Warrant to the Company and, so long as the Requisite Holders have approved the form, terms and conditions of a warrant agency agreement, the Warrant Agent, and (ii) if the Holder is not electing a Cashless Exercise (as defined below) pursuant to Section 1(c) of this Warrant, payment to the Company or the Warrant Agent of an amount equal to the applicable Exercise Price multiplied by the number of Warrant Shares as to which this Warrant is being exercised (the "**Aggregate Exercise Price**") in cash or wire transfer of immediately available funds (a "**Cash Exercise**"). The Holder shall not be required to surrender this Warrant in order to effect an exercise hereunder, provided that in the event of an exercise of this Warrant for all Warrant Shares then issuable hereunder, the Holder shall surrender this Warrant to the Warrant Agent by the third (3rd) Trading Day following the Share Delivery Date (as defined below). On or before the first (1st) Trading Day following the date on which the Company has received the Exercise Notice, the Company shall transmit by email or facsimile an acknowledgement of confirmation of receipt of the Exercise Notice to the Holder and the Warrant Agent. No ink original or medallion guarantee shall be required on any Exercise Notice. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Company's transfer agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("**DWAC**") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrant), and otherwise by physical

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delivery of a certificate or copy of book-entry form representing such shares, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise, by the date that is the earlier of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise and (ii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "**Share Delivery Date**"), provided that, except in the case of a cashless exercise of the Warrant, the Company or the Warrant Agent shall have received the aggregate Exercise Price payable by the Holder for the Warrant Shares purchased hereunder on or prior to the applicable Share Delivery Date. If the Company fails for any reason (other than failure to receive any applicable aggregate Exercise Price) to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the Weighted Average of the Common Stock on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise as provided in the next sentence, provided that Holder shall not be entitled to any liquidated damages pursuant to this sentence if Holder is entitled to a cash payment in accordance with the provisions set forth in the next paragraph in connection with a Buy-In. Any payments made pursuant to this Section 1(a) shall not constitute the Holder's exclusive remedy for such events; provided, however, that any payments made by the Company pursuant to this Section 1(a) shall reduce the amount of any damages that the Holder may be entitled to as a remedy for such events. If the Company fails to cause its transfer agent to transmit to the Holder the Warrant Shares pursuant to this Section 1(a) by the Share Delivery Date, then the Holder will have the right to rescind such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. Upon delivery of the Exercise Notice, so long as the Aggregate Exercise Price, in the case of a Cash Exercise, is delivered to the Warrant Agent on or before the first (1st) Trading Day following delivery of the Exercise Notice, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date such Warrant Shares are issued and deposited into the Holder's account with the Transfer Agent. If this Warrant is submitted in connection with any exercise pursuant to this Section 1(a) and the number of Warrant Shares represented by this Warrant submitted for exercise is greater than the number of Warrant Shares being acquired upon an exercise, then the Warrant Agent shall as soon as practicable and in no event later than two (2) Trading Days after any exercise and at the Company's own expense, issue a new Warrant (in accordance with Section 8(e)) representing the right to purchase the number of Warrant Shares purchasable immediately prior to such exercise under this Warrant, less the number of Warrant Shares with respect to which this Warrant is exercised. The Company shall pay any and all taxes that may be payable with respect to the issuance and delivery of Warrant

Shares upon exercise of this Warrant; provided, however, that the Company shall not be required to pay any tax which may be payable based on the income of the Holder or in respect of any transfer involved in the registration of any certificates or book-entry notation for Warrant Shares or 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 transferring this Warrant.

In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to issue and deposit into the Holder's account with the Transfer Agent such number of Warrant Shares to which the Holder is entitled upon the Holder's exercise pursuant to an exercise on or before the Share Delivery Date, and if after such Share Delivery Date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, 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 (a "**Buy-In**"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased in such Buy-In (the "**Buy-In Price**") exceeds (y) the amount obtained by multiplying (1) the number of shares of Common Stock purchased in such Buy-In by (2) the price at which the sell order giving rise to such Buy-In was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder (in which case, if Holder has not previously delivered to the Company the aggregate Exercise Price for such shares of Common Stock, Holder shall be required to deliver such aggregate Exercise Price to the Company prior the delivery of such shares of Common Stock) .

(b) Exercise Price. For purposes of this Warrant, "**Exercise Price**" means $[ ] per share of Common Stock, subject to adjustment as provided herein.

(c) Cashless Exercise. Notwithstanding anything contained herein to the contrary, the Holder may, in its sole discretion, exercise this Warrant in whole or in part and, in lieu of making the cash payment otherwise contemplated to be made to the Warrant Agent upon such exercise in payment of the Aggregate Exercise Price, elect instead to receive upon such exercise the "Net Number" of shares of Common Stock determined according to the following formula (a "**Cashless Exercise**"):

$$\text{Net Number} = \frac{(A \times B) - (A \times C)}{B}$$

For purposes of the foregoing formula:

A= the total number of shares with respect to which this Warrant is then being exercised.

B= the Weighted Average Price of the shares of Common Stock (as reported by Bloomberg) on the date immediately preceding the date of the Exercise Notice.

C= the Exercise Price then in effect for the applicable Warrant Shares at the time of such exercise.

The Company hereby covenants and agrees that the Warrant Shares issued in a Cashless Exercise shall be deemed to have been acquired by the Holder pursuant to Rule 3(a)(9) of the Securities Act.

(d) No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share that the Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

2. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. The Exercise Price and the number of Warrant Shares shall be adjusted from time to time as follows:

(a) Adjustment upon Subdivision or Combination of Shares of Common Stock. If the Company at any time on or after the Issuance Date subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its outstanding shares of Common Stock into a greater number of shares, the Exercise Price in effect immediately prior to such subdivision will be proportionately reduced and the number of Warrant Shares will be proportionately increased. If the Company at any time on or after the Issuance Date combines (by combination, reverse stock split or otherwise) one or more classes of its outstanding shares of Common Stock into a smaller number of shares, the Exercise Price in effect immediately prior to such combination will be proportionately increased and the number of Warrant Shares will be proportionately decreased. Any adjustment under this Section 2(a) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(b) Other Events. If any event occurs of the type contemplated by the provisions of Section 2(a) but not expressly provided for by such provisions (including, without limitation, the granting of stock appreciation rights, phantom stock rights or other rights with equity features to the holders of the Company's equity securities), then the Company's Board of Directors will make an appropriate adjustment in the Exercise Price and the number of Warrant Shares so as to protect the rights of the Holder; provided, that no such adjustment pursuant to this Section 2(b) will increase the Exercise Price or decrease the number of Warrant Shares as otherwise determined pursuant to this Section 2.

(c) Subsequent Equity Sales. If, at any time after the Company has obtained the Stockholder Approval, the Company shall sell or otherwise issue any Common Stock or any convertible securities, or shall grant any option to purchase or otherwise issue any Common Stock or any convertible securities, or shall amend the terms of any outstanding security of the Company, in each case so as to entitle any person to acquire shares of

Common Stock at an effective price per share less than the then Exercise Price (such lower price, the "**Base Share Price**" and such issuances collectively, a "**Dilutive Issuance**") (if the holder of the Common Stock or convertible securities so issued shall, at any time after the Company has obtained the Stockholder Approval, whether by operation of purchase price adjustments, reset provisions, floating conversion, exercise or exchange prices or otherwise, or

due to warrants, options or rights per share which are issued in connection with such issuance, be entitled to receive shares of Common Stock at an effective price per share which is less than the Exercise Price, such issuance shall be deemed to have occurred for less than the Exercise Price on such date of the Dilutive Issuance) and if this Warrant is outstanding at such time, then the Exercise Price shall be reduced and only reduced to equal the Base Share Price. For the avoidance of doubt, for purposes of this Section 2(c), if there is a Dilutive Issuance at any time after the Company has obtained the Stockholder Approval, if this Warrant is outstanding at such time and if such Dilutive Issuance consists of a package or unit of two (2) or more securities that entitle the holder of such securities to purchase shares of Common Stock at two or more different effective prices per share, then for each Dilutive Issuance the Exercise Price shall be reduced pursuant to this Section 2(c) to the lowest of such two or more different effective prices per share and such lowest effective price per share shall become the Base Share Price for purposes of this Section 2(c). Notwithstanding anything express or implied in the foregoing provisions of this Section 2(c) to the contrary, (i) no adjustments shall be made, paid or issued under this Section 2(c), and this Section 2(c) shall not become effective or be of any force or effect whatsoever, unless and until the Company has obtained the Stockholder Approval, and (ii) no adjustments shall be made, paid or issued under this Section 2(c) at any time (including, without limitation, at any time after the Company has obtained Stockholder Approval) in respect of an Exempt Issuance and the provisions of this Section 2(c) that are applicable to a Dilutive Issuance after the Company has obtained Stockholder Approval shall not be applicable to an Exempt Issuance.

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

3. RIGHTS UPON DISTRIBUTION OF ASSETS. If the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "**Distribution**"), at any time after the issuance of this Warrant, then, in each such case:

(a) any Exercise Price in effect immediately prior to the close of business on the record date fixed for the determination of holders of shares of Common Stock entitled to receive the Distribution shall be reduced, effective as of the close of business on such record date, to a price determined by multiplying such Exercise Price by a fraction of which (i) the numerator shall be the Weighted Average Price of the shares of Common Stock on the Trading Day immediately preceding such record date minus the value of the Distribution (as determined in good faith by the Company's Board of Directors) applicable to one share of Common Stock, and (ii) the denominator shall be the Weighted Average Price of the shares of Common Stock on the Trading Day immediately preceding such record date; and

(b) the number of Warrant Shares shall be increased to a number of shares equal to the number of shares of Common Stock obtainable immediately prior to the close of business on the record date fixed for the determination of holders of shares of Common Stock entitled to receive the Distribution multiplied by the reciprocal of the fraction set forth in the immediately preceding paragraph (a); provided, that in the event that the Distribution is of shares of Common Stock or common stock of a company whose common shares are traded on a national securities exchange or a national automated quotation system ("**Other Shares of Common Stock**"), then the Holder may elect to receive a warrant to purchase Other Shares of Common Stock in lieu of an increase in the number of Warrant Shares, the terms of which shall be identical to those of this Warrant, except that such warrant shall be exercisable for the number of shares of Other Shares of Common Stock that would have been payable to the Holder pursuant to the Distribution had the Holder exercised this Warrant immediately prior to such record date and with an aggregate exercise price equal to the product of the amount by which the exercise price of this Warrant was decreased with respect to the Distribution pursuant to the terms of the immediately preceding paragraph (a) and the number of Warrant Shares calculated in accordance with the first part of this paragraph (b).

4. PURCHASE RIGHTS; FUNDAMENTAL TRANSACTIONS.

(a) Purchase Rights. In addition to any adjustments pursuant to Section 2 above, if at any time prior to the Expiration Date the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to all of the record holders of any class of shares of Common Stock (the "**Purchase Rights**"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that to the extent that the Holder's right to participate in any such Purchase Rights would result in the Holder exceeding the Beneficial Ownership Limitation (as defined below), if any, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation, if any, at which time the Holder shall be granted such right to the same extent as if there had been no such limitation). The "Beneficial Ownership Limitation", if any, shall be equal to 4.99% or 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant and shall be indicated on Schedule I attached hereto. If the Holder does not have a Beneficial Ownership Limitation, then Schedule I attached hereto shall so indicate. The Beneficial Ownership Limitation, if any, may be decreased or increased in accordance with the provisions of Section 9 hereof, but in no event shall such Beneficial Ownership Limitation, if any, be increased above 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant.

(b) Fundamental Transactions. Upon the occurrence of any Fundamental Transaction in which the Company is neither the Successor Entity nor the Parent Entity of the Successor Entity, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein. Upon consummation of any Fundamental Transaction pursuant to which holders of shares of Common Stock are entitled to receive securities or other assets with respect to or in exchange for shares of Common Stock, the Successor Entity shall deliver to the Holder confirmation that there shall be issued upon exercise of this Warrant at any time after the consummation of such Fundamental Transaction, in lieu of, or in addition to, the shares of the Common Stock (or other securities, cash, assets or other property purchasable upon the exercise of the Warrant prior to such Fundamental Transaction), such shares of stock, securities, cash, assets or any other property whatsoever (including warrants or other purchase or subscription rights), if any, that the Holder would have been entitled to receive upon the happening of such Fundamental Transaction had this Warrant been exercised immediately prior to such Fundamental Transaction, as adjusted in accordance with the provisions of this Warrant. In addition to and not in substitution for any other rights hereunder, prior to the consummation of any Fundamental Transaction pursuant to which holders of shares of Common Stock are entitled to receive securities or other assets with respect to or in exchange for shares of Common Stock (a "**Corporate Event**"), the Company shall make appropriate provision to ensure that the Holder will thereafter have the right to receive

upon exercise of this Warrant within 30 days after the consummation of the Fundamental Transaction but, in any event, prior to the Expiration Date, in lieu of, or in addition to, the shares of the Common Stock (or other securities, cash, assets or other property) purchasable upon the exercise of the Warrant prior to such Fundamental Transaction, such shares of stock, securities, cash, assets or any other property whatsoever (including warrants or other purchase or subscription rights) which the Holder would have been entitled to receive upon the happening of such Fundamental Transaction had the Warrant been exercised immediately prior to such Fundamental Transaction.

5. RESERVATION OF WARRANT SHARES. The Company covenants that it will at all times 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, at least a number of shares of Common Stock equal to 150% of the number of shares of Common Stock which are then issuable and deliverable upon the exercise of this entire Warrant, free from preemptive or any other contingent

purchase rights of Persons other than the Holder (taking into account the adjustments and restrictions in Section 2). The Company covenants that all shares of Common Stock 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 nonassessable. The Company will take all such actions as may be reasonably necessary, including but not limited to seeking stockholder approval, 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.

6. INSUFFICIENT AUTHORIZED SHARES. If at any time while this Warrant remains outstanding the Company does not have a sufficient number of authorized and unreserved shares of Common Stock to satisfy its obligation to reserve for issuance upon exercise of this Warrant at least a number of shares of Common Stock equal to 150% (the "**Required Reserve Amount**") of the number of shares of Common Stock as shall from time to time be necessary to effect the exercise of all of this Warrant then outstanding (an "**Authorized Share Failure**"), then the Company shall immediately take all action necessary to increase the Company's authorized shares of Common Stock to an amount sufficient to allow the Company to reserve the Required Reserve Amount for this Warrant then outstanding. Without limiting the generality of the foregoing sentence, as soon as practicable after the date of the occurrence of an Authorized Share Failure, but in no event later than one hundred and twenty (120) days after the occurrence of such Authorized Share Failure, the Company shall hold a meeting of its stockholders for the approval of an increase in the number of authorized shares of Common Stock. In connection with such meeting, the Company shall provide each stockholder with a proxy statement and shall use its reasonable best efforts to solicit its stockholders' approval of such increase in authorized shares of Common Stock and to cause the Company's Board of Directors to recommend to the stockholders that they approve such proposal.

7. WARRANT HOLDER NOT DEEMED A STOCKHOLDER. Except as otherwise specifically provided herein, 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, 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.

8. REGISTRATION AND REISSUANCE OF WARRANTS.

(a) Registration of Warrant. The Company or its Transfer Agent shall register this Warrant, upon the records to be maintained by the Company or its Transfer Agent for that purpose (the "**Warrant Register**"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary. The Company or its Transfer Agent shall also register any transfer, exchange, reissuance or cancellation of any portion of this Warrant in the Warrant Register. This Warrant shall automatically be cancelled at 11:59:01 p.m., New York time, on the Expiration Date and upon such cancellation, the Company or its Transfer Agent shall register the cancellation of this Warrant in the Warrant Register.

(b) Transfer of Warrant. This Warrant may be offered for sale, sold, transferred or assigned without the consent of the Company, except as may otherwise be required by applicable securities laws. Subject to applicable securities laws, if this Warrant is to be transferred, the Holder shall surrender this Warrant to the Company or its Transfer Agent, as directed by the Company, together with all applicable transfer taxes and all additional documentation (including, without limitation, an opinion of counsel reasonably satisfactory to the Company) reasonably requested by the Company to confirm that any such transfer of this Warrant complies with applicable securities laws, whereupon the Company will, or will cause its Transfer Agent to, forthwith issue and deliver upon the order of the Holder a new Warrant (in accordance with Section 8(e)), registered as the Holder may request, representing the right to purchase the number of Warrant Shares being transferred by the Holder and, if

less than the total number of Warrant Shares then underlying this Warrant is being transferred, a new Warrant (in accordance with Section 8(e)) to the Holder representing the right to purchase the number of Warrant Shares not being transferred. The acceptance and execution 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.

(c) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder to the Company in customary form by the Holder to the Company (but without the requirement to post a bond) and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company or its Transfer Agent, as directed by the Company, shall execute and deliver to the Holder a new Warrant (in accordance with Section 8(e)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(d) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company or its Transfer Agent, as directed by the Company, together with all applicable transfer taxes, for a new Warrant or Warrants (in accordance with Section 8(e)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will

represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender; provided, however, that the Company or its Transfer Agent, as directed by the Company, shall not be required to issue Warrants for fractional shares of Common Stock hereunder.

(e) Issuance of New Warrants. Whenever the Company or its Transfer Agent, as directed by the Company, is required to issue a new Warrant pursuant to the terms of this Warrant, such new Warrant shall (i) be of like tenor with this Warrant, (ii) represent, as indicated on the face of such new Warrant, the right to purchase the Warrant Shares then underlying this Warrant (or in the case of a new Warrant being issued pursuant to Section 8(b) or Section 8(c), the Warrant Shares designated by the Holder which, when added to the number of shares of Common Stock underlying the other new Warrants issued in connection with such issuance, does not exceed the number of Warrant Shares then underlying this Warrant), (iii) have an issuance date, as indicated on the face of such new Warrant which is the same as the Issuance Date and (iv) have the same terms and conditions as this Warrant.

9. LIMITATION ON EXERCISES. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 1 or otherwise, to the extent that, after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates and Attribution Parties), would beneficially own in excess of the Beneficial Ownership Limitation, if any. For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon 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 (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties to the extent subject to the Beneficial Ownership Limitation, if any, and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any convertible notes, convertible preferred stock or warrants) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 9, beneficial ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 9 applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the

Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 9, in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company or the Transfer Agent shall within two (2) Trading Days confirm orally and in writing 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 or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation, if any, and may impose a Beneficial Ownership Limitation if the Holder previously did not have any Beneficial Ownership Limitation, provided that any increase in the Beneficial Ownership Limitation (or any imposition of any Beneficial Ownership Limitation if the Holder previously did not have any Beneficial Ownership Limitation) shall not be effective until the 61st day after such notice is delivered to the Company; and provided further that any Beneficial Ownership Limitation that is imposed or increased shall not exceed 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 9 to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

10. NOTICES. Whenever notice is required to be given under this Warrant, unless otherwise provided herein, such notice shall be given in writing, (a) if delivered from within the domestic United States, by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, or by facsimile or (b) if delivered from outside the United States, by International Federal Express or facsimile and (c) will be deemed given (i) if delivered by first-class registered or certified domestic mail, three business days after so mailed, (ii) if delivered by nationally recognized overnight carrier, one business day after so mailed, (iii) if delivered by International Federal Express, two (2) business days after so mailed and (iv) if delivered by facsimile, upon electronic confirmation of receipt, or email, upon receipt, and will be delivered and addressed as follows:

(a) If to the Company, to

Leap Therapeutics, Inc.
47 Thorndike St, Suite B1-1
Cambridge, MA 02141
Facsimile number: 617-588-1606
Email address: PIPEnotices@leaptx.com
Attn: Chief Financial Officer

(b) If to the Holder, at such address set forth in the warrant register maintained by the Warrant Agent.

The Company shall give written notice to the Holder (i) reasonably promptly following any adjustment of the Exercise Price, setting forth in reasonable detail, and certifying, the calculation of such adjustment and (ii) at least ten (10) days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the shares of Common Stock, (B) with respect to any grants, issuances or sales of any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation; provided, that in each case, such information shall be made known to the public prior to or in conjunction with such notice being provided to the Holder. Upon

receipt or delivery by the Company of any notice in accordance with the terms of this Warrant, unless the Company has in good faith determined that the matters relating to such notice do not constitute material, nonpublic information relating to the Company or its subsidiaries, the Company shall

contemporaneously with any such receipt or delivery publicly disclose such material, nonpublic information on a Current Report on Form 8-K or otherwise in accordance with applicable laws. In the event that the Company believes that a notice contains material, nonpublic information relating to the Company or its subsidiaries, the Company so shall indicate to such Holder contemporaneously with delivery of such notice, and in the absence of any such indication, the Holder shall be allowed to presume that all matters relating to such notice do not constitute material, nonpublic information relating to the Company or its subsidiaries.

11. NONCIRCUMVENTION. The Company hereby covenants and agrees that the Company will not, by amendment of its Certificate of Incorporation or Bylaws, each as currently in effect, or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, 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, and will at all times in good faith carry out all the provisions of this Warrant and take all action as may be required to protect the rights of the Holder. Without limiting the generality of the foregoing, the Company (i) shall not increase the par value of any shares of Common Stock receivable upon the exercise of this Warrant above the Exercise Price then in effect, (ii) shall use all reasonable efforts to take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Common Stock upon the exercise of this Warrant and (iii) shall, so long as the Warrant is outstanding, take all action necessary to reserve and keep available out of its authorized and unissued shares of Common Stock, solely for the purpose of effecting the exercise of the Warrant, the number of shares of Common Stock as shall from time to time be necessary to effect the exercise of the Warrant then outstanding (without regard to any limitations on exercise).

12. AMENDMENT AND WAIVER. Except as otherwise provided herein, the provisions of this Warrant may not be modified, amended or waived except pursuant to an instrument in writing signed by the Company and either (1) the Holder or (2) the Requisite Holders, provided that, in the case of this clause (2), any such modification, amendment or waiver must apply to all outstanding warrants issued pursuant to the Purchase Agreements in the same fashion and must not consist of or involve a reduction of the number of Warrant Shares, an increase of the Exercise Price or a reduction or shortening of the term of this Warrant. The Company may not take any action herein prohibited, or omit to perform any act herein required to be performed by it without the written consent of the Holder and the Holder may not take any action herein prohibited, or omit to perform any act herein required to be performed by it without the written consent of the Company. The Company and the Holder each hereby irrevocably waives any right it may have to a trial by jury in respect of any claim based upon or arising out of this Warrant or any transaction contemplated hereby.

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

14. GOVERNING LAW. This Warrant shall be governed by and construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Warrant shall be governed by, the internal laws of the State of New York, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York.

15. CONSTRUCTION; HEADINGS. This Warrant shall be deemed to be jointly drafted by the Company and the Holder and shall not be construed against any person as the drafter hereof. The headings of this Warrant are for convenience of reference and shall not form part of, or affect the interpretation of, this Warrant.

16. DISPUTE RESOLUTION. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall submit the disputed determinations or arithmetic calculations via email or facsimile within two (2) Trading Days of receipt of the Exercise Notice giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation of the Exercise Price or the Warrant Shares within five (5) Trading Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two (2) Trading Days submit via email or facsimile (a) the disputed determination of the Exercise Price to an

independent, reputable investment bank selected by the Company and approved by the Holder or (b) the disputed arithmetic calculation of the Warrant Shares to the Company's independent, outside accountant. The Company shall cause the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than ten (10) Trading Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error. The expenses of the investment bank and accountant will be borne by the Company unless the investment bank or accountant determines that the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares by the Holder was incorrect, in which case the expenses of the investment bank and accountant will be borne by the Holder.

17. REMEDIES, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant, at law or in equity (including a decree of specific performance and/or other injunctive relief). The Company acknowledges that a breach by it of its obligations hereunder may cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the holder of this Warrant shall be entitled, in addition to all other available remedies, to seek an injunction restraining any breach.

18. CERTAIN DEFINITIONS. For purposes of this Warrant, the following terms shall have the following meanings:

(a) "Affiliate" means, with respect to any Person, any other Person that directly or indirectly controls, is controlled by, or is under common control with, such Person, it being understood for purposes of this definition that "control" of a Person means the power directly or indirectly either to vote 10% or more of the stock having ordinary voting power for the election of directors of such Person or direct or cause the direction of the management and policies of such Person whether by contract or otherwise.

(b) "Bloomberg" means Bloomberg Financial Markets.

(c) "Common Stock" means (i) the Company's shares of Common Stock, $0.001 par value per share, and (ii) any share capital into which such Common Stock shall have been changed or any share capital resulting from a reclassification of such Common Stock.

(d) "Convertible Securities" means any stock or securities (other than Options) directly or indirectly convertible into or exercisable or exchangeable for shares of Common Stock.

(e) "Eligible Market" means the Principal Market, The New York Stock Exchange, Inc., the NYSE American LLC, The Nasdaq Stock Market, or the OTC Bulletin Board.

(f) "Exempt Issuance" means the issuance of (1) shares of Common Stock or options to employees, consultants, officers or directors of the Company pursuant to any stock or option plan duly adopted for such purpose by the Company's Board of Directors or a majority of the members of a committee established for such purpose; (2) shares of Common Stock upon exercise, exchange or conversion of securities that are issued and outstanding on the Issuance Date and that are exercisable, exchangeable for or convertible into shares of Common Stock, provided that such securities have not been amended since the Issuance Date to increase the number of such shares of Common Stock or to decrease the exercise, exchange or conversion price of such securities; (3) securities in accordance with existing obligations of the Company to Company employees, consultants, officers, directors or agents; (4) securities to any current or former employees, consultants, officers, directors or agents of the Company in satisfaction of or in settlement of any disputes or controversies concerning the terms of such person's employment, consulting or other service relationship with the Company or the terms of such person's separation from the Company; (5) securities pursuant to a merger, consolidation, acquisition, business combination, licensing, joint venture, strategic alliance, corporate partnering or similar transaction the primary purpose of which is not to raise equity capital; (6) securities in connection with any stock split, stock dividend, recapitalization or similar transaction by the Company; (7) securities as consideration, whether in whole or in part, to any person or entity for

providing services or supplying goods to the Company; (8) securities to any entity which is or will be, itself or through its subsidiaries or affiliates, an operating company in a business related to or complementary with the business of the Company and in which the Company receives material benefits in addition to the investment of funds; (9) securities pursuant to any equipment leasing arrangement; (10) securities to any commercial bank, finance company or similar institution in connection with any loan, credit facility or lending arrangement entered into by the Company with any such bank finance company or similar institution; (11) securities to pay all or a portion of any investment banking, finders or similar fee or commission, which entitles the holders thereof to acquire shares of Common Stock at a price not less than the market price of the Common Stock on the date of such issuance and which is not subject to any adjustments other than on account of stock splits and reverse stock splits; and (12) securities as may be mutually agreed in writing prior to their issuance by the Company and either (I) the Requisite Holders or (II) the Holder.

(g) "Fundamental Transaction" means (A) that the Company shall, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, (i) consolidate or merge with or into (whether or not the Company is the surviving corporation) another Subject Entity, or (ii) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Company or any of its "significant subsidiaries" (as defined in Rule 1-02 of Regulation S-X) to one or more Subject Entities, or (iii) make, or allow one or more Subject Entities to make, or allow the Company to be subject to or have its shares of Common Stock be subject to or party to one or more Subject Entities making, a purchase, tender or exchange offer that is accepted by the holders of at least either (x) 50% of the outstanding shares of Common Stock, (y) 50% of the outstanding shares of Common Stock calculated as if any shares of Common Stock held by all Subject Entities making or party to, or Affiliated with any Subject Entities making or party to, such purchase, tender or exchange offer were not outstanding; or (z) such number of shares of Common Stock such that all Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such purchase, tender or exchange offer, become collectively the beneficial owners (as defined in Rule 13d-3 under the Exchange Act) of at least 50% of the outstanding shares of Common Stock, or (iv) consummate a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with one or more Subject Entities whereby all such Subject Entities, individually or in the aggregate, acquire, either (x) at least 50% of the outstanding shares of Common Stock, (y) at least 50% of the outstanding shares of Common Stock calculated as if any shares of Common Stock held by all the Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such stock purchase agreement or other business combination were not outstanding; or (z) such number of shares of Common Stock such that the Subject Entities become collectively the beneficial owners (as defined in Rule 13d-3 under the Exchange Act) of at least 50% of the outstanding shares of Common Stock, or (v) reorganize, recapitalize or reclassify its shares of Common Stock, (B) that the Company shall, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, allow any Subject Entity individually or the Subject Entities in the aggregate to be or become the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, whether through acquisition, purchase, assignment, conveyance, tender, tender offer, exchange, reduction in outstanding shares of Common Stock, merger, consolidation, business combination, reorganization, recapitalization, spin-off, scheme of arrangement, reorganization, recapitalization or reclassification or otherwise in any manner whatsoever, of either (x) at least 50% of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock, (y) at least 50% of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock not held by all such Subject Entities as of the date of this Warrant calculated as if any shares of Common Stock held by all such Subject Entities were not outstanding, or (z) a percentage of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock or other equity securities of the Company sufficient to allow such Subject Entities to effect a statutory short form merger or other transaction requiring other stockholders of the Company to surrender their Common Stock without approval of the stockholders of the Company or (C) directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, the issuance by the Company of or the entering by the Company into any other instrument or transaction structured in a manner to circumvent, or that circumvents, the intent of this

definition in which case this definition shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this definition to the extent necessary to correct this definition or any portion of this definition which may be defective or inconsistent with the intended treatment of such instrument or transaction.

(h) "Group" means a "group" as that term is used in Section 13(d) of the Exchange Act and as defined in Rule 13d-5 thereunder.

(i) "Options" means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

(j) "Parent Entity" of a Person means an entity that, directly or indirectly, controls the applicable Person and whose common stock or equivalent equity security is quoted or listed on an Eligible Market, or, if there is more than one such Person or Parent Entity, the Person or Parent Entity with the largest public market capitalization as of the date of consummation of the Fundamental Transaction.

(k) "Person" means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

(l) "Principal Market" means The NASDAQ Global Market.

(m) "Purchase Agreements" means those certain Purchase Agreements, each dated on or about November [ ], 2017, by and between the Company and the purchaser party thereto, pursuant to which the Company sold and issued to the purchasers parties thereto shares of Common Stock and warrants to purchase shares of Common Stock.

(n) "Requisite Holders" means those holders of warrants issued pursuant to the Purchase Agreements that represent at least 70% of the shares of Common Stock issuable upon exercise of all outstanding warrants issued pursuant to the Purchase Agreements.

(o) "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise.

(p) "Stockholder Approval" means the approval required by the applicable rules and regulations of the NASDAQ Global Market (or any successor entity) from the stockholders of the Company of the provisions of Section 2(c) of this Warrant and of Section 2(c) of all of the other warrants sold and issued by the Company pursuant to the Purchase Agreement in order for such provisions to become effective by their terms and to be in compliance with such applicable rules and regulations of the NASDAQ Global Market (or any successor entity).

(q) "Successor Entity" means the Person (or, if so elected by the Holder, the Parent Entity) formed by, resulting from or surviving any Fundamental Transaction or the Person (or, if so elected by the Holder, the Parent Entity) with which such Fundamental Transaction shall have been entered into.

(r) "Subject Entity" means any Person, Persons or Group or any Affiliate or associate of any such Person, Persons or Group.

(s) "Trading Day" means any day on which the Common Stock is traded on the Principal Market, or, if the Principal Market is not the principal trading market for the Common Stock, then on the principal securities exchange or securities market on which the Common Stock is then traded; provided that "Trading Day" shall not include any day that the Common Stock is suspended from trading during the final hour of trading on such exchange or market (or if such exchange or market does not designate in advance the closing time of trading on such exchange or market, then during the hour ending at 4:00:00 p.m., New York Time).

(t) "Transfer Agent" means Continental Stock Transfer & Trust Company, or any other successor Person appointed to act in the capacity of transfer agent of the Company.

(u) "Warrant Agent" means Continental Stock Transfer & Trust Company, or any other successor Person appointed to act in the capacity of warrant agent of the Company upon approval by the Requisite Holders of the form, terms and conditions of a warrant agency agreement.

(v) "Weighted Average Price" means, for any security as of any date, the dollar volume-weighted average price for such security on the Principal Market during the period beginning at 9:30:01 a.m., New York City time, and ending at 4:00:00 p.m., New York City time, as reported by Bloomberg through its "Volume at Price" function or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the over-the-counter market on the electronic bulletin board for such security during the period beginning at 9:30:01 a.m., New York City time, and ending at 4:00:00 p.m., New York City time, as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest closing bid price and the lowest closing ask price of any of the market makers for such security as reported in the OTC Pink Market maintained by OTC Markets Group Inc. If the Weighted Average Price cannot be calculated for such security on such date on any of the foregoing bases, the Weighted Average 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 such dispute shall be resolved pursuant to Section 16 with the term "Weighted Average Price" being substituted for the term "Exercise Price." All such determinations shall be appropriately adjusted for any share dividend, share split or other similar transaction during such period.

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Warrant to Purchase Common Stock to be duly executed as of the Issuance Date set out above.

LEAP THERAPEUTICS, INC.

By:
Name:
Title:

Accepted as of the date first written above:

[**PURCHASER**]

By:
Name:
Title:

Schedule I

Holder	Beneficial Ownership Limitation Percentage (4.99%, 9.99% or No Beneficial Ownership Limitation)

Warrant Holders

Investor	Warrants
Valence Helix Investments, LLC	258,833
Kingsbrook Opportunities Master Fund LP	41,085
Lincoln Park Capital Fund, LLC	50,000
Tiburon Opportunity Fund LP	82,169
DAFNA Lifesciences LP	145,440
DAFNA Lifesciences Select LP	101,068
Ernpery Asset Master, LTD	30,554
Ernpery Tax Efficient, LP	14,588
Ernpery Tax Efficient II, LP	37,027
Sabby Volatility Warrant Master Fund, Ltd.	200,000
CVI Investments, Inc.	85,000
Julio E. Vega	32,868
Eli Lilly and Company	821,693
Healthcare Ventures IX, L.P.	1,057,769
Total	**2,958,094**

EXHIBIT A

EXERCISE NOTICE

TO BE EXECUTED BY THE REGISTERED HOLDER TO EXERCISE THIS WARRANT TO PURCHASE COMMON STOCK

LEAP THERAPEUTICS, INC.

The undersigned holder hereby exercises the right to purchase of the shares of Common Stock ("**Warrant Shares**") of Leap Therapeutics, Inc., a Delaware corporation (the "**Company**"), evidenced by the attached Warrant to Purchase Common Stock (the "**Warrant**"). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

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

o Cash Exercise under Section 1(a).

o Cashless Exercise under Section 1(c).

2. Cash Exercise. If the Holder has elected a Cash Exercise, the Holder shall pay the sum of $ to the Company in accordance with the terms of the Warrant.

3. Delivery of Warrant Shares. The Company shall deliver to the holder Warrant Shares in accordance with the terms of the Warrant. If the shares are to be delivered electronically, please complete the Depositary information below.

4. Representations and Warranties. 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 (determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended) permitted to be owned under Section 9 of this Warrant to which this notice relates.

DATED: _____

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

Registered Holder

Address: _____

If shares are to be delivered electronically:
Broker name:
Broker Depositary account #:
Account at Broker shares are to be delivered to:

ACKNOWLEDGMENT

The Company hereby acknowledges this Exercise Notice.

LEAP THERAPEUTICS, INC.

By:
Name: _____
Title:

PURCHASE AGREEMENT

THIS PURCHASE AGREEMENT is made as of November 14, 2017 by and between Leap Therapeutics, Inc. (the "**Company**"), a corporation organized under the laws of the State of Delaware, with its principal offices at 47 Thorndike Street, Suite B1-1, Cambridge, Massachusetts 02141, and the purchaser whose name and address is set forth on the signature page hereof (the "**Purchaser**").

IN CONSIDERATION of the mutual covenants contained in this Purchase Agreement, the Company and the Purchaser hereby agree as follows:

SECTION 1. Authorization of Sale of the Shares and the Warrants. Subject to the terms and conditions of this Purchase Agreement, the Company has authorized the issuance and sale of up to 2,958,094 shares (the "**Shares**") of common stock, par value $0.001 per share (the "**Common Stock**"), of the Company, and 2,958,094 warrants (the "**Warrants**") to purchase up to 2,958,094 shares of Common Stock (the "**Warrant Shares**" and, together with the Shares and the Warrants, the "**Securities**").

SECTION 2. Agreement to Sell and Purchase the Securities. Subject to and upon the terms and conditions of this Purchase Agreement, at the Closing (as defined in Section 3), the Company will issue and sell to the Purchaser, and the Purchaser will buy from the Company, the number of Shares and Warrants at the purchase price shown below:

Number of Shares to be Purchased	Number of Warrants to be Purchased	Price Per Unit	Aggregate Purchase Price
[ ]	[ ]	$ [ ]	$ [ ]

The Company proposes to enter into this same form of purchase agreement, including the form of warrant attached hereto as Exhibit A, with certain other investors (the "**Other Purchasers**") and expects to complete sales of shares of Common Stock and warrants to purchase Common Stock to them. The Purchaser and the Other Purchasers are hereinafter sometimes collectively referred to as the "**Purchasers**," and this Purchase Agreement, the Warrant, and the purchase agreements and warrants executed by the Other Purchasers are hereinafter sometimes collectively referred to as the "**Agreements**." The term "**Placement Agents**" shall mean Raymond James & Associates, Inc. and Ladenburg Thalmann & Co. Inc., acting severally and not jointly.

SECTION 3. Delivery of the Shares and the Warrants at the Closing. The completion of the purchase and sale of the Shares and the Warrants being purchased hereunder (the "**Closing**") shall occur at the offices of Morgan, Lewis & Bockius LLP, One Federal Street, Boston, Massachusetts 02110, promptly following the satisfaction of all conditions for Closing set forth below (the "**Closing Conditions**"), or on such later date or at such different location as the parties shall agree to in writing, but not prior to or later than the

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third business day after, the date that the Closing Conditions have been satisfied or waived by the appropriate party (the "**Closing Date**").

At the Closing, the Purchaser shall deliver, in immediately available funds, the full amount of the purchase price for the Shares and the Warrants being purchased hereunder by wire transfer to an account designated by the Company and the Company shall deliver to the Purchaser (or its designated custodian per its delivery instructions): (i) one or more stock certificates registered in the name of the Purchaser, or in such nominee name(s) as designated by the Purchaser in writing representing, or confirmation of instruction given by the Company to Continental Stock Transfer & Trust Company, as transfer agent of the Common Stock, to register the Shares in book-entry form with respect to, the number of Shares set forth in Section 2 above and bearing an appropriate legend referring to the fact that the Shares were sold in reliance upon the exemption from registration under the Securities Act of 1933, as amended (the "**Securities Act**"), provided by Section 4(a)(2) thereof; and (ii) one or more certificates representing the Warrants registered in the name of the Purchaser, or in such nominee name(s) as designated by the Purchaser in writing, in substantially the form attached hereto as Exhibit A, representing the number of Warrants set forth in Section 2 above and bearing an appropriate legend referring to the fact that the Warrants were sold in reliance upon the exemption from registration under the Securities Act provided by Section 4(a)(2) thereof. At such time as the registration statement filed by the Company pursuant to Section 7.1 hereof (the "**Resale Registration Statement**") becomes effective, the Company shall deliver to the Company's transfer agent written instructions in proper form to the effect that, notwithstanding any legend contemplated under Section 5.9 hereof that is set forth in any certificate or certificates or book-entry designation representing any of the Shares or the Warrants being purchased hereunder, the Company's transfer agent can implement and effect any proposed sale by the Purchaser of any of such Shares if such proposed sale is under the Resale Registration Statement and the Purchaser has complied with all of its obligations under Section 5.12(a) hereof. The name(s) in which the stock certificate(s) and warrant certificate(s) are to be registered or book-entries are to be made are set forth in the Stock Certificate Questionnaire attached hereto as part of Appendix I. For the avoidance of doubt, notwithstanding anything in this Purchase Agreement to the contrary, at the request of the Purchaser, in lieu of issuing certificates for the Shares, the Company will instruct the Transfer Agent to register uncertificated Shares in book-entry form on the books of the Company and any provision herein that applies to the certificated shares or the legends on such certificates shall apply to the Shares in uncertificated form.

The Company's obligation to complete the purchase and sale of Shares and the Warrants and deliver such stock certificate(s) and warrant certificate(s) to the Purchaser at the Closing shall be subject to the following conditions, any one or more of which may be waived by the Company: (a) receipt by the Company of same-day funds in the full amount of the purchase price for the Shares and the Warrants being purchased hereunder and the shares of Common Stock and warrants being purchased under each of the other Agreements executed by an Other Purchaser; (b) the execution and delivery to the Company by the Purchaser and the Other Purchasers of each Agreement and completion of the purchases and sales under the Agreements with the Other Purchasers; and (c) the accuracy of the representations and warranties made by the Purchaser and the Other Purchasers and the fulfillment of those undertakings of the Purchaser and the Other Purchasers to be fulfilled prior to the Closing. The Purchaser's obligation to accept delivery of such stock certificate(s) and warrant certificate(s) or acknowledge the registration of such

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uncertificated Shares on the books and records of the Company and to pay for the Securities evidenced thereby shall be subject to the following conditions: (a) each of the representations and warranties of the Company made in Section 4 hereof shall be accurate as of the Closing Date as if made at and as of the

Closing Date (except to the extent that any of such representations and warranties is expressly made as of an earlier date, in which case such representations and warranties shall be accurate as of such earlier date), except where the failure of such representations and warranties to be so true and correct (without giving effect to any limitation as to "materiality" or "Material Adverse Effect" set forth therein), individually or in the aggregate, has not had, and would not reasonably be expected to have, a Material Adverse Effect (as defined in Section 4.4 below); (b) the fulfillment in all material respects of those undertakings of the Company to be fulfilled prior to the Closing; (c) the execution and delivery to the Company of a voting agreement, in substantially the form attached hereto as Exhibit B (the "**Voting Agreement**"), by holders of at least a majority of the issued and outstanding shares of capital stock of the Company immediately prior to the date of this Purchase Agreement, pursuant to which such holders shall agree to vote all of the shares of capital stock of the Company owned by them in favor of the matters that constitute the Stockholder Approval; (d) confirmation by the Company that the total amount being raised by the Company pursuant to all Agreements with the Purchaser and all Other Purchasers is equal to at least $18 million; (e) the receipt by the Purchaser of a legal opinion addressed to the Purchasers and the Placement Agents from Morgan, Lewis & Bockius LLP, counsel to the Company; and (f) receipt by the Purchaser of a certificate executed by the chief executive officer and the chief financial or accounting officer of the Company, dated as of the Closing Date, to the effect that the conditions set forth in the foregoing clauses (a) and (b) have been satisfied. The Purchaser's obligations hereunder are expressly conditioned on the purchase by all of the Other Purchasers of the shares of Common Stock and warrants that they have agreed to purchase from the Company pursuant to the Agreements executed by each of the Other Purchasers and the Company.

SECTION 4. Representations, Warranties and Covenants of the Company. Except as such information may be otherwise disclosed in the reports, schedules, forms, statements and other documents filed by the Company under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**") (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, and any amendment filed in relation thereto, being collectively referred to herein as the "**SEC Reports**"), which disclosures qualify these representations and warranties in their entirety, the Company hereby represents and warrants to, and covenants with, the Purchaser as follows:

4.1 Organization and Qualification. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of its jurisdiction of incorporation and the Company is qualified to do business as a foreign corporation in each jurisdiction in which qualification is required, except where failure to so qualify would not have a Material Adverse Effect (as defined herein). Each of the Company's subsidiaries (each a "**Subsidiary**" and collectively the "**Subsidiaries**") is a direct or indirect wholly owned subsidiary of the Company. Each Subsidiary is duly organized, validly existing and in good standing under the laws of its jurisdiction of incorporation and is qualified to do business as a foreign corporation in each jurisdiction in which qualification is required, except where failure to so qualify would not have a Material Adverse Effect.

4.2 Authorized Capital Stock. As of June 30, 2017, the Company had duly authorized and validly issued outstanding capitalization as set forth in the SEC Reports. The issued and outstanding shares of Common Stock have been duly authorized and validly issued, are fully paid and nonassessable, have been issued in compliance with all federal and state securities laws, were not issued in violation of or subject to any preemptive rights or other rights to subscribe for or purchase securities, and, as of the date of this Purchase Agreement, conform in all material respects to the description contained in the SEC Reports. The Company does not have outstanding as of the date of this Purchase Agreement any options to purchase, or any preemptive rights or other rights to subscribe for or to purchase, any securities or obligations convertible into, or any contracts or commitments to issue or sell, shares of its capital stock or any such options, rights, convertible securities or obligations. With respect to each of the Subsidiaries (i) all the issued and outstanding shares of such Subsidiary's capital stock have been duly authorized and validly issued, are fully paid and nonassessable, have been issued in compliance with all federal and state securities laws, were not issued in violation of or subject to any preemptive rights or other rights to subscribe for or purchase securities, and (ii) there are no outstanding options to purchase, or any preemptive rights or other rights to subscribe for or to purchase, any securities or obligations convertible into, or any contracts or commitments to issue or sell, shares of such Subsidiary's capital stock or any such options, rights, convertible securities or obligations.

4.3 Issuance, Sale and Delivery of the Shares and the Warrants. The Securities being purchased hereunder have been duly authorized and, when issued, delivered and paid for in the manner set forth in this Purchase Agreement, and with respect to the Warrant Shares, upon payment of the exercise price pursuant to the terms of the Warrants, will be validly issued, fully paid and nonassessable and free and clear of all liens, encumbrances and rights of refusal of any kind and the Purchaser shall be entitled to all rights accorded to a holder of Common Stock. The Warrant Shares have been duly and validly reserved from the Company's authorized capital stock. Except for the rights described in this Purchase Agreement, no stockholder of the Company has any right to require the Company to register the sale of any capital stock owned by such stockholder under the Resale Registration Statement. No further approval or authority of the stockholders or the Board of Directors of the Company will be required for the issuance and sale of the Shares and the Warrants to be sold by the Company as contemplated herein.

4.4 Due Execution, Delivery and Performance of the Agreement. The Company has full legal right, corporate power and authority to enter into this Purchase Agreement and perform the transactions contemplated hereby. This Purchase Agreement has been duly authorized, executed and delivered by the Company. This Purchase Agreement constitutes a legal, valid and binding agreement of the Company, enforceable against the Company in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws of general application relating to or affecting the enforcement of creditors' rights and the application of equitable principles relating to the availability of remedies, and except as rights to indemnity or contribution, including but not limited to, indemnification provisions set forth in Section 7.3 of this Purchase Agreement may be limited by federal or state securities law or the public policy underlying such laws. The execution and performance of this Purchase Agreement by the Company and the consummation of the transactions herein contemplated will not violate any

provision of the certificate of incorporation or bylaws of the Company or the organizational documents of any Subsidiary and will not result in the creation of any lien, charge, security interest or encumbrance upon any assets of the Company or any Subsidiary pursuant to the terms or provisions of, or will not conflict with, result in the breach or violation of, or constitute, either by itself or upon notice or the passage of time or both, a default under any agreement, mortgage, deed of trust, lease, franchise, license, indenture, permit or other instrument to which any of the Company or any Subsidiary is a party or by which any of the Company or any Subsidiary or their respective properties may be bound or affected and in each case that would have a Material Adverse Effect or any statute or any authorization, judgment, decree, order, rule or regulation of any court or any regulatory body, administrative agency or other governmental agency or body applicable to the Company or any Subsidiary or any of their respective properties. No consent, approval, authorization or other order of any court, regulatory body, administrative agency or other governmental agency or body is required for the execution and delivery of this Purchase Agreement or the consummation of the transactions contemplated by this Purchase Agreement, except for compliance with the Blue Sky laws

and federal securities laws applicable to the offering of the Shares and the Warrants. For the purposes of this Purchase Agreement, the term "**Material Adverse Effect**" shall mean a material adverse effect on the condition (financial or otherwise), properties, business, prospects or results of operations of the Company and its Subsidiaries, taken as a whole, except any of the following, either alone or in combination, shall not be deemed a Material Adverse Effect: (i) effects caused by changes or circumstances affecting general economic or political conditions or conditions in securities markets or that are generally applicable to the industry in which the Company or its Subsidiaries operate, provided that such effects do not adversely affect the Company and its Subsidiaries, taken as a whole, in a disproportionate manner, or (ii) effects caused by any event, occurrence or condition resulting from or relating to the taking of any action in accordance with this Purchase Agreement.

4.5 Accountants. EisnerAmper LLP, who have certified certain financial statements of the Company, whose report is included in the SEC Reports, are registered independent public accountants as required by the Securities Act and the rules and regulations promulgated thereunder and by the rules of the Public Accounting Oversight Board. There are no disagreements of any kind presently existing between the Company and EisnerAmper LLP.

4.6 No Defaults or Consents. Neither the execution, delivery and performance of this Purchase Agreement by the Company nor the consummation of any of the transactions contemplated hereby (including, without limitation, the issuance and sale by the Company of the Shares and the Warrants) will give rise to a right to terminate or accelerate the due date of any payment due under, or conflict with or result in the breach of any term or provision of, or constitute a default (or an event which with notice or lapse of time or both would constitute a default) under, except such defaults that individually or in the aggregate would not cause a Material Adverse Effect, or require any consent or waiver under, or result in the execution or imposition of any lien, charge or encumbrance upon any properties or assets of the Company or its Subsidiaries pursuant to the terms of, any indenture, mortgage, deed of trust or other agreement or instrument to which the Company or any of its Subsidiaries is a party or by which either the Company or its Subsidiaries or any of its or their properties or businesses is bound, or any franchise, license, permit, judgment, decree, order, statute, rule or

regulation applicable to the Company or any of its Subsidiaries or violate any provision of the charter or by-laws of the Company or any of its Subsidiaries, except for such consents or waivers which have already been obtained and are in full force and effect.

4.7 Contracts. Each contract that is material to the business of the Company and its Subsidiaries has been duly and validly authorized, executed and delivered by the Company or such Subsidiary, as applicable, and constitute the legal, valid and binding agreements of the Company or such Subsidiary, as applicable, enforceable by and against it in accordance with their respective terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws relating to enforcement of creditors' rights generally, and general equitable principles relating to the availability of remedies, and except as rights to indemnity or contribution may be limited by federal or state securities laws and the public policy underlying such laws.

4.8 No Actions. There are no legal or governmental actions, suits or proceedings pending or, to the Company's knowledge, threatened against the Company or any Subsidiary before or by any court, regulatory body or administrative agency or any other governmental agency or body, domestic, or foreign, which actions, suits or proceedings, individually or in the aggregate, might reasonably be expected to have a Material Adverse Effect; and no labor disturbance by the employees of the Company or its Subsidiaries exists or, to the knowledge of the Company, is imminent, that might reasonably be expected to have a Material Adverse Effect. Neither the Company nor any Subsidiary is a party to or subject to the provisions of any injunction, judgment, decree or order of any court, regulatory body, administrative agency or other governmental agency or body that might have a Material Adverse Effect.

4.9 Properties. The Company and each Subsidiary has good and marketable title to all the properties and assets described as owned by it in the SEC Reports, free and clear of all liens, mortgages, pledges, or encumbrances of any kind except those that are not material in amount and do not adversely affect the use made and proposed to be made of such property by the Company or its Subsidiaries. The Company and each Subsidiary holds its leased properties under valid and binding leases. The Company and any Subsidiary owns or leases all such properties as are necessary to its operations as now conducted.

4.10 No Material Adverse Change. Since June 30, 2017 (i) the Company and its Subsidiaries have not incurred any material liabilities or obligations, indirect, or contingent, or entered into any material agreement or other transaction, in each case that are not or is not in the ordinary course of business of the Company or its Subsidiaries; (ii) the Company and its Subsidiaries have not sustained any material loss or interference with their businesses or properties from fire, flood, windstorm, accident or other calamity not covered by insurance; (iii) the Company and its Subsidiaries have not paid or declared any cash dividends or other cash distributions with respect to their capital stock and none of the Company or any Subsidiary is in default in the payment of principal or interest on any outstanding debt obligations; (iv) during the period ending on the date of this Purchase Agreement, there has not been any change in the capital stock of the Company or its Subsidiaries other than the sale of the Shares and the Warrants hereunder and shares or options issued pursuant to employee equity incentive plans or purchase plans approved by the Company's Board of Directors, or

indebtedness material to the Company or its Subsidiaries (other than in the ordinary course of business and any required scheduled payments); (v) no event, liability, fact, circumstances, occurrence or development has occurred or exists or is reasonably expected to occur or exist with respect to the Company or its Subsidiaries or their respective businesses, properties, operations, assets or financial condition that would be required to be disclosed by the Company under applicable securities laws at the time this representation is made or deemed to be made that has not been publically disclosed at least one (1) trading day prior to the date that this representation is made; and (vi) there has not occurred any event that has caused or could reasonably be expected to cause a Material Adverse Effect.

4.11 Regulatory Authority. Except, in each case, where such event could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, the Company and each of its Subsidiaries: (i) has not received any unresolved U.S. Food and Drug Administration ("**FDA**") or similar governmental agency or body ("**Governmental Authority**") written notice of inspectional observations, Form 483, written notice of adverse filing, warning letter, untitled letter or other similar correspondence or notice from the FDA, or any other court or arbitrator or

federal, state, local or foreign governmental or regulatory authority, alleging or asserting material noncompliance with the Federal Food, Drug and Cosmetic Act (21 U.S.C. § 301 et seq.), or received any written requests or requirements to make material changes to its products by the FDA or any other Governmental Authority; (ii) is and has been in compliance with applicable health care laws, including, the Federal Food, Drug and Cosmetic Act (21 U.S.C. § 301 et seq.), the federal Anti-kickback Statute (42 U.S.C. § 1320a-7b(b)), the civil False Claims Act (31 U.S.C. §§ 3729 et seq.), the criminal False Claims Law (42 U.S.C. § 1320a-7b(a)), the Civil Monetary Penalties Law (42 U.S.C. § 1320a-7a), the Physician Payment Sunshine Act (42 U.S.C. § 1320a-7h), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, and the health care fraud criminal provisions under the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. § 1320d et seq.) ("**HIPAA**"), the exclusion laws (42 U.S.C. § 1320a-7), Medicare (Title XVIII of the Social Security Act), Medicaid (Title XIX of the Social Security Act), HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, and the regulations promulgated pursuant to such laws, and comparable state laws, and all other foreign, federal, state and local laws relating to the regulation of the Company and its Subsidiaries (collectively, "**Health Care Laws**"); (iii) has not engaged in activities which are, as applicable, cause for false claims liability, civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, or any other state health care program or federal health care program; (iv) possesses all governmental permits and supplements or amendments thereto required by any such Health Care Laws and/or to carry on its businesses as currently conducted as described in the SEC Reports ("**Authorizations**"), and such Authorizations are valid and in full force and effect and neither the Company nor any of its Subsidiaries is in violation of any term of any such Authorizations; (v) has not received written notice of any ongoing claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any Governmental Authority alleging that any product, operation or activity is in material violation of any Health Care Laws or Authorizations and has no knowledge that any such Governmental Authority has threatened any such claim, litigation, arbitration, action, suit, investigation or proceeding; (vi) has not received written notice that any Governmental Authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any

Authorizations and has no knowledge that any such Governmental Authority has threatened such action; (vii) has filed, obtained, maintained or submitted all reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments thereto as required by any Health Care Laws or Authorizations and all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete, correct and not misleading on the date filed (or were corrected or supplemented by a subsequent submission); (viii) is not a party to any corporate integrity agreement, deferred prosecution agreement, monitoring agreement, consent decree, settlement order, or similar agreements, or has any reporting obligations pursuant to any such agreement, plan or correction or other remedial measure entered into with any Governmental Authority; (ix) has not, nor has any officer, director, employee, agent or, to the knowledge of the Company or any Subsidiary, any distributor of the Company or any Subsidiary, made an untrue statement of a material fact or a fraudulent statement to the FDA or any other Governmental Authority, failed to disclose a material fact required to be disclosed to the FDA or any other Governmental Authority, or committed an act, made a statement, or failed to make a statement, in each such case, related to the business of the Company or its Subsidiaries that, at the time such disclosure was made, would reasonably be expected to provide a basis for the FDA to invoke its policy respecting "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities," set forth in 56 Fed. Reg. 46191 (September 10, 1991) or for the FDA or any other Governmental Authority to invoke any similar policy; (x) has not, nor has any officer, director, employee, or, to the knowledge of the Company or any Subsidiary, any agent or distributor of the Company or any Subsidiary, been debarred or convicted of any crime or engaged in any conduct for which debarment is mandated by 21 U.S.C. § 335a(a) or any similar law or authorized by 21 U.S.C. § 335a(b) or any similar law applicable in other jurisdictions in which the Company's products or Subsidiary's product candidates are sold or intended by the Company to be sold; and (xi) neither the Company, its Subsidiaries nor their officers, directors, employees, agents or contractors has been or is currently debarred, suspended or excluded from participation in the Medicare and Medicaid programs or any other state or federal health care program.

4.12 Intellectual Property. The Company and/or its 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 SEC Reports as being owned or licensed by them or which are necessary for the conduct of their respective businesses as currently conducted or as proposed to be conducted (including the commercialization of products or services described in the SEC Reports as under development), except where the failure to own, license or have such rights could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect (collectively, "**Intellectual Property**"); except as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, (i) there are no third parties who have or, to the Company's knowledge, will be able to establish rights to any of the Intellectual Property of the Company or its Subsidiaries, except for, and to the extent of, the ownership rights of the owners of the Intellectual Property which the SEC Reports disclose are licensed to the Company or any of its Subsidiaries; (ii) to the Company's knowledge, there is no infringement by third parties of any Intellectual Property; (iii) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the

Company's or its Subsidiaries' rights, as applicable, in or to any Intellectual Property, and the Company and its Subsidiaries are unaware of any facts that could form a reasonable basis for any such action, suit, proceeding or claim; (iv) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the validity, enforceability or scope of any Intellectual Property, and the Company is unaware of any facts that could form a reasonable basis for any such action, suit, proceeding or claim; (v) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others that the Company or any of its Subsidiaries infringes or otherwise violates (or would, upon the commercialization of any product or service described in the SEC Reports as under development, infringe or violate) any patent, trademark, tradename, service name, copyright, trade secret or other proprietary rights of others, and the Company is unaware of any facts that could form a reasonable basis for any such action, suit, proceeding or claim; (vi) the Company and/or its Subsidiaries have complied in all material respects with the terms of each agreement pursuant to which Intellectual Property has been licensed to the Company or any of its Subsidiaries, and all such agreements are in full force and effect; (vii) to the Company's knowledge, there is no patent or patent application that contains claims that interfere with the issued or pending claims of any of the Intellectual Property or that challenges the validity, enforceability or scope of any of the Intellectual Property; and (viii) to the Company's knowledge, there is no prior art that may render any patent application within the Intellectual Property unpatentable that has not been disclosed to the U.S. Patent and Trademark Office.

4.13 Compliance. None of the Company nor its Subsidiaries have been advised, nor do any of them have any reason to believe, that the Company and its Subsidiaries are not conducting business in compliance with all applicable laws, rules and regulations of the jurisdictions

in which it is conducting business, including, without limitation, all applicable local, state and federal environmental laws and regulations, except where failure to be so in compliance would not have a Material Adverse Effect.

4.14 Taxes. The Company and its Subsidiaries have filed on a timely basis (giving effect to extensions) all required federal, state and foreign income and franchise tax returns and has paid or accrued all taxes shown as due thereon, and none of the Company or any Subsidiary has knowledge of a tax deficiency that has been or might be asserted or threatened against it that could have a Material Adverse Effect. All tax liabilities accrued through the date hereof have been adequately provided for on the books of the Company and its Subsidiaries.

4.15 Transfer Taxes. On the Closing Date, all stock transfer or other taxes (other than income taxes) that are required to be paid in connection with the sale and transfer of the Shares and the Warrants to be sold to the Purchaser hereunder will have been, fully paid or provided for by the Company and its Subsidiaries and all laws imposing such taxes will have been fully complied with.

4.16 Investment Company. Neither the Company nor any Subsidiary is, and, following the completion of the offering, will not be, an "investment company" or an "affiliated person" of, or "promoter" or "principal underwriter" for an investment company, within the meaning of the Investment Company Act of 1940, as amended, and the rules and regulations of the Securities and Exchange Commission (the "**SEC**") promulgated thereunder.

4.17 Offering Materials. Neither the Company nor any Subsidiary has in the past nor will it hereafter take any action independent of the Placement Agents to sell, offer for sale or solicit offers to buy any securities of the Company or its Subsidiaries that could result in the initial sale of the Shares and the Warrants not being exempt from the registration requirements of Section 5 of the Securities Act.

4.18 Insurance. The Company and its Subsidiaries maintain insurance underwritten by insurers of recognized financial responsibility, of the types and in the amounts that such entities reasonably believe is adequate for their respective businesses, including, but not limited to, insurance covering all real and personal property owned or leased by such entities against theft, damage, destruction, acts of vandalism and all other risks customarily insured against, with such deductibles as are customary for companies in the same or similar businesses, all of which insurance is in full force and effect.

4.19 Use of Proceeds. The Company shall use the proceeds from the sale of the Shares and the Warrants to continue to advance its clinical programs and for working capital and general corporate purposes.

4.20 Non-Public Information. Neither the Company nor its Subsidiaries has disclosed to the Purchaser any information that would constitute material non-public information as of the Closing Date other than the existence of the transaction contemplated hereby. All of the disclosure furnished by or on behalf of the Company directly to the Purchaser and filed or furnished in SEC Reports regarding the Company and its Subsidiaries, their respective businesses and, if applicable, the transactions contemplated hereby, is true and correct and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. The Company acknowledges that the Purchaser has not made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth herein.

4.21 Use of Purchaser Name. Except as otherwise required by applicable law or regulation, neither the Company nor its Subsidiaries shall use the Purchaser's name or the name of any of its affiliates in any advertisement, announcement, press release or other similar public communication unless it has received the prior written consent of the Purchaser for the specific use contemplated.

4.22 Related Party Transactions. No transaction has occurred between or among the Company, on the one hand, and its affiliates, officers or directors on the other hand, or between any Subsidiary, on the one hand, and its affiliates, officers or directors on the other hand, that is required to have been described under applicable securities laws in the SEC Reports, that is not so described in such filings.

4.23 Off-Balance Sheet Arrangements. There is no transaction, arrangement or other relationship between the Company or any Subsidiary and an unconsolidated or other off-balance sheet entity that is required to have been described under applicable securities laws in the SEC Reports that is not so disclosed or that otherwise would be reasonably likely to have a Material Adverse Effect. There are no such transactions,

arrangements or other relationships with the Company or any Subsidiary that may create contingencies or liabilities that have not been otherwise disclosed by the Company in the SEC Reports.

4.24 Governmental Permits, Etc. The Company and each Subsidiary has all franchises, licenses, certificates and other authorizations from such federal, state or local government or governmental agency, department or body that are currently necessary for the operation of the business of the Company and its Subsidiaries as currently conducted, except where the failure to possess currently such franchises, licenses, certificates and other authorizations is not reasonably expected to have a Material Adverse Effect. Neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any such permit that, if the subject of an unfavorable decision, ruling or finding, could reasonably be expected to have a Material Adverse Effect.

4.25 Financial Statements. The financial statements of the Company, and the related notes and schedules thereto, included in the SEC Reports fairly present in all material respects the financial position, results of operations, stockholders' equity and cash flows of the Company at the dates and for the periods specified therein. Such financial statements and the related notes and schedules thereto have been prepared in accordance with generally accepted accounting principles consistently applied throughout the periods involved (except as otherwise noted therein) and all adjustments necessary for a fair presentation in all material respects of results for such periods have been made; provided, however, that the unaudited financial statements are subject to normal year-end audit adjustments (which are not expected to be material) and do not contain all footnotes required under generally accepted accounting principles.

4.26 Listing Compliance. The Company complies with all requirements of The NASDAQ Stock Market and shall cause the Shares and the Warrant Shares to be approved for listing on The NASDAQ Stock Market on the Closing Date. The issuance and sale of the Shares and Warrants hereunder does not contravene the rules and regulations of the NASDAQ Stock Exchange as of the Closing Date.

4.27 Internal Accounting Controls. The Company and each Subsidiary maintains a system of internal accounting controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific 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. The Company and each Subsidiary has disclosure controls and procedures (as defined in Rules 13a-14 and 15d-14 under the Exchange Act) that are designed to ensure that material information relating to such entity is made known to such entity's principal executive officer and principal financial officer or persons performing similar functions. The Company and each Subsidiary is otherwise in compliance in all material respects with all applicable provisions of the Sarbanes-Oxley Act of 2002, as amended and the rules and regulations promulgated thereunder.

4.28 Foreign Corrupt Practices. Neither the Company, nor any Subsidiary, nor, to the Company's knowledge, any director, officer, agent, employee or other persons acting on behalf of the Company or any Subsidiary has, in the course of its actions for, or on behalf of, the Company (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended; or (iv) made any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any foreign or domestic government official or employee.

4.29 OFAC. Neither the Company nor any Subsidiary nor, to the Company's knowledge, any director, officer, agent, employee, affiliate or person acting on behalf of the Company or any Subsidiary is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("**OFAC**"); and the Company will not knowingly, directly or indirectly, use the proceeds of the sale of the Shares and the Warrants, or lend, contribute or otherwise make available such proceeds to any Subsidiary, joint venture partner or other person or entity, towards any sales or operations in any country sanctioned by OFAC or for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

4.30 Money Laundering Laws. The operations of each of the Company and any Subsidiary are and have been conducted at all times in material compliance with the money laundering statutes of applicable jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any applicable governmental agency (collectively, the "**Money Laundering Laws**") and to the Company's and its Subsidiary's knowledge, no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company and/or any Subsidiary with respect to the Money Laundering Laws is pending or threatened.

4.31 Employee Relations. Neither the Company nor any Subsidiary is a party to any collective bargaining agreement or employs any member of a union. The Company and each Subsidiary believes that their relations with their employees are good. No executive officer of the Company (as defined in Rule 501(f) promulgated under the Securities Act) has notified the Company, as applicable, that such officer intends to leave the Company or any Subsidiary, as applicable, or otherwise terminate such officer's employment with the Company or any Subsidiary, as applicable. To the knowledge of the Company, no executive officer of the Company or any Subsidiaries is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement, non-competition agreement, or any other agreement or any restrictive covenant, and the continued employment of each such executive officer does not subject the Company or any Subsidiary to any liability with respect to any of the foregoing matters.

4.32 ERISA. The Company and each Subsidiary is in compliance in all material respects with all presently applicable provisions of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published

interpretations thereunder (herein called "**ERISA**"); no "reportable event" (as defined in ERISA) has occurred with respect to any "pension plan" (as defined in ERISA) for which the Company or its Subsidiaries would have any liability; neither the Company nor its Subsidiaries have incurred and do not expect to incur liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any "pension plan"; or (ii) Sections 412 or 4971 of the Internal Revenue Code of 1986, as amended, including the regulations and published interpretations thereunder (the "**Code**"); and each "**Pension Plan**" for which the Company or the Company's Subsidiaries would have liability that is intended to be qualified under Section 401(a) of the Code is so qualified in all material respects and nothing has occurred, whether by action or by failure to act, which would cause the loss of such qualification.

4.33 Environmental Matters. There has been no storage, disposal, generation, manufacture, transportation, handling or treatment of toxic wastes, hazardous wastes or hazardous substances by the Company or any Subsidiary (or, to the knowledge of the Company, any of their predecessors in interest) at, upon or from any of the property now or previously owned or leased by the Company or any Subsidiary in violation in any material respect of any applicable law, ordinance, rule, regulation, order, judgment, decree or permit or that would require material remedial action under any applicable law, ordinance, rule, regulation, order, judgment, decree or permit; there has been no material spill, discharge, leak, emission, injection, escape, dumping or release of any kind into such property or into the environment surrounding such property of any toxic wastes, medical wastes, solid wastes, hazardous wastes or hazardous substances due to or caused by the Company or any Subsidiary or with respect to which the Company or any Subsidiary have knowledge; the terms "hazardous wastes," "toxic wastes," "hazardous substances" and "medical wastes" shall have the meanings specified in any applicable local, state, federal and foreign laws or regulations with respect to environmental protection.

4.34 Integration; Other Issuances of Securities. Neither the Company nor its Subsidiaries or any affiliates, nor any Person acting on its or their behalf, has issued any shares of Common Stock or shares of any series of preferred stock or other securities or instruments convertible into, exchangeable for or otherwise entitling the holder thereof to acquire shares of Common Stock which would be integrated with the sale of the Shares and the Warrants hereunder to the Purchaser (i) for purposes of the Securities Act and would thereby result in the Shares and the Warrants being sold to the Purchaser hereunder not to be exempt from the registration requirements of the Securities Act or (ii) for purposes of any applicable stockholder approval

provisions, including, without limitation, under the rules and regulations of any exchange or automated quotation system on which any of the securities of the Company are listed or designated, nor will the Company or its Subsidiaries or affiliates take any action or steps that would require registration of any of the Shares or the Warrants under the Securities Act or cause the offering of the Shares and the Warrants to be integrated with other offerings. Assuming the accuracy of the representations and warranties of Purchasers, the offer and sale of the Shares and the Warrants by the Company to the Purchasers pursuant to this Purchase Agreement will be exempt from the registration requirements of the Securities Act.

4.35 No Disqualification Events. With respect to the Securities to be offered and sold hereunder in reliance on Rule 506 under the Securities Act, none of the Company, any of its predecessors, any affiliated issuer, any director, executive officer, other officer of the Company participating in the offering hereunder, any beneficial owner of 20% or more of the Company's outstanding voting equity securities, calculated on the basis of voting power, nor any promoter (as that term is defined in Rule 405 under the Securities Act) connected with the Company in any capacity at the time of sale (each, an "Issuer Covered Person" and, together, "Issuer Covered Persons") is subject to any of the "Bad Actor" disqualifications described in Rule 506(d)(1)(i) to (viii) under the Securities Act (a "Disqualification Event"), except for a Disqualification Event covered by Rule 506(d)(2) or (d)(3). The Company has exercised reasonable care to determine whether any Issuer Covered Person is subject to a Disqualification Event. The Company has complied, to the extent applicable, with its disclosure obligations under Rule 506(e), and has furnished to the Purchaser a copy of any disclosures provided thereunder.

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

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

4.38 Shell Company Status; Compliance with Financial Statement Requirements. The Company has never been an issuer subject to Rule 144(i) under the Securities Act. The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing.

SECTION 5. Representations, Warranties and Covenants of the Purchaser. The Purchaser represents and warrants to, and covenants with, the Company that:

5.1 Experience. (i) The Purchaser is knowledgeable, sophisticated and experienced in financial and business matters, in making, and is qualified to make, decisions with respect to investments in shares representing an investment decision like that involved in the purchase of the Shares and the Warrants, including investments in securities issued by the Company and comparable entities, has the ability to bear the economic risks of an investment in the Shares and the Warrants; (ii) the Purchaser is acquiring the number of Shares and Warrants set forth in Section 2 above in the ordinary course of its business and for its own account for investment only and with no present intention of distributing any of such Shares or Warrants or any arrangement or understanding with any other persons regarding the distribution of such Shares or Warrants (this representation and warranty not limiting the Purchaser's right to sell pursuant to the Resale Registration Statement or in compliance with the Securities Act and the rules and regulations promulgated under the Exchange Act and the

Securities Act (together, the "**Rules and Regulations**"), or, other than with respect to any claims arising out of a breach of this representation and warranty, the Purchaser's right to indemnification under Section 7.3); (iii) the Purchaser will not, directly or indirectly, offer, sell, pledge, transfer or otherwise dispose of (or solicit any offers to buy, purchase or otherwise acquire or take a pledge of) any of the Shares or the Warrants, nor will the Purchaser engage in any short sale that results in a disposition of any of the Shares or the Warrants by the Purchaser, except in compliance with the Securities Act and the Rules and Regulations and any applicable state securities laws; (iv) the Purchaser has completed or caused to be completed the Resale Registration Statement Questionnaire attached hereto as part of Appendix I, for use in preparation of the Resale Registration Statement, and the answers thereto are true and correct as of the date hereof and will be true and correct as of the effective date of the Resale Registration Statement and the Purchaser will notify the Company immediately of any material change in any such information provided in the Resale Registration Statement Questionnaire until such time as the Purchaser has sold all of its Shares and Warrants or until the Company is no longer required to keep the Resale Registration Statement effective; (v) any other written information furnished to the Company by or on behalf of the Purchaser expressly for inclusion in the Resale Registration Statement will be true and correct as of the date such other written information is provided and will be true and correct as of the effective date of the Resale Registration Statement and the Purchaser will notify the Company immediately of any material change in any such other written information until such time as the Purchaser has sold all of its Shares or until the Company is no longer required to keep the Resale Registration Statement effective; (vi) the Purchaser has, in connection with its decision to purchase the number of Shares and Warrants set forth in Section 2 above, relied solely upon the representations and warranties of the Company contained herein; and (vii) the Purchaser has had an opportunity to discuss this investment with representatives of the Company and ask questions of them.

5.2 Accredited Investor. The Purchaser is an "accredited investor" as defined in Rule 501(a) promulgated under the Securities Act, as presently in effect.

5.3 Limitation on Effectiveness of Certain Antidilution Provisions of Warrants; Limitation on Certain Issuances. The Purchaser hereby acknowledges, understands and agrees that the full ratchet antidilution provisions of Section 2(c) of each warrant sold and issued by the Company pursuant to this Purchase Agreement and each of the other Agreements shall not become effective and shall be of no force or effect whatsoever unless and until the Company shall have obtained from the stockholders of the Company the approval required by the applicable rules and regulations of the NASDAQ Global Market (or any successor entity) in order for such full ratchet antidilution provisions to be in compliance with such applicable rules and regulations (such approval from the stockholders of the Company being hereinafter referred to as the "**Stockholder Approval**"). Until the Company shall have obtained the Stockholder Approval, neither the Company nor any Subsidiary shall make any issuance whatsoever of Common Stock or Common Stock Equivalents (as defined in Section 7.9 hereof) at an effective per share price that is lower than $6.085 (subject to adjustment for forward

and reverse stock splits and the like after the date hereof); provided, however, that the foregoing provisions of this sentence shall not be applicable to any Exempt Issuance (as defined in Section 7.9 hereof). The Purchaser shall be entitled to obtain injunctive relief against the Company to preclude any issuance that would contravene the

provisions of the immediately preceding sentence, which remedy shall be in addition to any right to collect damages.

5.4 Reliance on Exemptions. The Purchaser understands that the Shares and the Warrants are being offered and sold to it in reliance upon specific exemptions from the registration requirements of the Securities Act, the Rules and Regulations and state securities laws and that the Company is relying upon the truth and accuracy of, and the Purchaser's compliance with, the representations, warranties, agreements, acknowledgments and understandings of the Purchaser set forth herein in order to determine the availability of such exemptions and the eligibility of the Purchaser to acquire the Shares and the Warrants.

5.5 No Reliance on Placement Agents. In making a decision to purchase the Shares and the Warrants, the Purchaser has not received or relied on any communication, investment advice, or recommendation from the Placement Agents and the Purchaser: (i) is capable of evaluating investment risks independently, both in general and with regard to all transactions and investment strategies involving a security or securities; (ii) will exercise independent judgment in evaluating the recommendations of any broker-dealer or its associated persons, unless it has otherwise notified the Placement Agents in writing; and (iii) confirms that it has undertaken an independent analysis of the merits and risks of an investment in the Company, based on the Purchaser's own financial circumstances.

5.6 Confidentiality. For the benefit of the Company, the Purchaser previously agreed with the Placement Agents to keep confidential all information concerning this private placement. The Purchaser understands that the information concerning this private placement is strictly confidential and proprietary to the Company and has been prepared from the Company's publicly available documents and other information and is being submitted to the Purchaser for the Purchaser's confidential use. The Purchaser agrees to use the information for the sole purpose of evaluating a possible investment in the Shares and the Warrants, and the Purchaser acknowledges that it is prohibited from reproducing or distributing the Investor Presentation, this Purchase Agreement, or any other offering materials or other information provided by the Company in connection with the Purchaser's consideration of its investment in the Company, in whole or in part, or divulging or discussing any of their contents, except to its financial, investment or legal advisors in connection with its proposed investment in the Shares and the Warrants. Further, the Purchaser understands that the existence and nature of all conversations and presentations, if any, regarding the Company and this offering must be kept strictly confidential. The Purchaser understands that the federal securities laws impose restrictions on trading based on information regarding this offering. This obligation will terminate upon the filing by the Company of a press release or press releases describing this offering. In addition to the above, the Purchaser shall maintain in confidence the receipt and content of any notice of a Suspension (as defined in Section 5.12 below). The foregoing agreements shall not apply to any information that is or becomes publicly available through no fault of the Purchaser, or that the Purchaser is legally required to disclose; provided, however, that if the Purchaser is requested or ordered to disclose any such information pursuant to any court or other government order or any other applicable legal procedure, it shall provide the Company with prompt notice of any such request or order in time sufficient to enable the Company to seek an appropriate protective order. To the extent that the Company delivers any material, non-public information to the Purchaser without the

Purchaser's consent, the Company hereby covenants and agrees that the Purchaser shall not have any duty of confidentiality to the Company, any of its Subsidiaries, or any of their respective officers, directors, agents, employees or Affiliates, or a duty to the Company, any of its Subsidiaries or any of their respective officers, directors, agents, employees or Affiliates not to trade on the basis of, such material, non-public information, provided that (i) the Purchaser shall remain subject to applicable law and (ii) the foregoing provisions of this sentence shall not be applicable to any material, non-public information delivered by the Company to the Purchaser pursuant to any agreement between the Company or any of its Subsidiaries and the Purchaser that imposes on the Purchaser confidentiality obligations to the Company or any of its Subsidiaries with respect to such material, non-public information, except that, for clarity, the provisions of this clause (ii) shall not be applicable to any confidentiality agreements or non-disclosure agreements that are terminated pursuant to the provisions of Section 7.1(h) below. To the extent that any notice provided pursuant to this Purchase Agreement constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the SEC pursuant to a Current Report on Form 8-K. The Company understands and confirms that the Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company.

5.7 Investment Decision. The Purchaser understands that nothing in this Purchase Agreement or any other materials presented to the Purchaser in connection with the purchase and sale of the Shares and the Warrants constitutes legal, tax or investment advice. The Purchaser has consulted such legal, tax and investment advisors as it, in its sole discretion, has deemed necessary or appropriate in connection with its purchase of the Shares and the Warrants.

5.8 Risk of Loss. The Purchaser understands that its investment in the Shares and the Warrants involves a significant degree of risk, including a risk of total loss of the Purchaser's investment, and the Purchaser has full cognizance of and understands all of the risk factors related to the Purchaser's purchase of the Shares and the Warrants.

5.9 Legend. The Purchaser understands that, until such time as the Shares and the Warrant Shares may be sold pursuant to Rule 144 under the Securities Act without any restriction as to the number of securities as of a particular date that can then be immediately sold and except if and to the extent otherwise provided below in this Section 5.9, the Shares and the Warrant Shares will bear a restrictive legend in substantially the following form:

> "THE SHARES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION. THE SHARES MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT (1) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OR (2) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE

SECURITIES ACT, IN EACH CASE IN ACCORDANCE WITH ALL APPLICABLE STATE SECURITIES LAWS AND THE SECURITIES LAWS OF OTHER JURISDICTIONS, AND IN THE CASE OF A TRANSACTION EXEMPT FROM REGISTRATION, UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO IT THAT SUCH TRANSACTION DOES NOT REQUIRE REGISTRATION UNDER THE SECURITIES ACT AND SUCH OTHER APPLICABLE LAWS."

The Company acknowledges and agrees that the Purchaser may from time to time pledge pursuant to a bona fide margin agreement with a registered broker-dealer or grant a security interest in some or all of the Securities to a financial institution that is an "accredited investor" as defined in Rule 501(a) under the Securities Act and, if required under the terms of such arrangement, the Purchaser may transfer pledged or secured Securities to the pledgees or secured parties; provided that any such pledge and/or any such transfer of pledged or secured Securities to pledgees or secured parties complies with applicable United States federal and state securities laws. Such a pledge or transfer would not be subject to approval of the Company and no legal opinion of legal counsel of the pledgee, secured party or pledgor shall be required in connection therewith if the Securities subject to such pledge or transfer are, at the applicable time, either eligible for immediate resale pursuant to Rule 144 without any volume or manner-of-sale restrictions or registered for resale pursuant to the Resale Registration Statement. Further, no notice shall be required of such pledge. At the Purchaser's expense, the Company will execute and deliver such reasonable documentation as a pledgee or secured party of Securities may reasonably request in connection with a pledge or transfer of the Securities, including, if the Securities are subject to registration pursuant to this Purchase Agreement, the preparation and filing of any required prospectus supplement under Rule 424(b)(3) under the Securities Act or other applicable provision of the Securities Act to appropriately amend the list of Selling Stockholders in the Resale Registration Statement.

Certificates evidencing the Shares and Warrant Shares shall not be required to contain any legend (including the legend set forth above in this Section 5.9 hereof), (i) while a registration statement (including the Resale Registration Statement) covering the resale of such security is effective under the Securities Act, (ii) following any sale of such Shares or Warrant Shares pursuant to Rule 144 (assuming cashless exercise of the Warrants), (iii) if such Shares or Warrant Shares are eligible for immediate sale under Rule 144 (assuming cashless exercise of the Warrants) without any volume or manner-of-sale restrictions, or (iv) if such legend is not required under applicable requirements of the Securities Act (including judicial interpretations and pronouncements issued by the staff of the SEC). The Company shall cause its counsel to issue a legal opinion to the Company's transfer agent or the Purchaser if required by the Company's transfer agent to effect the removal of the legend hereunder, or if requested by the Purchaser, respectively, provided that such legend is not required pursuant to the foregoing provisions of this paragraph. The Company agrees that at such time as such legend is no longer required under this Section 5.9 (including, without limitation, following the effective date of the Resale Registration Statement), it will, no later than the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined below) following the delivery by the Purchaser to the Company or the Company's transfer agent of a

certificate representing Shares or Warrant Shares, as the case may be, issued with a restrictive legend (such date, the "Legend Removal Date"), deliver or cause to be delivered to the Purchaser a certificate representing such shares that is free from all restrictive and other legends. The Company may not make any notation on its records or give instructions to the Company's transfer agent that enlarge the restrictions on transfer set forth in this Section 5.9. It is understood and agreed that the Company may make any notation on its records or give instructions to the Company's transfer agent that the Securities are subject to the restrictions on transfer referred to in the legend set forth above in this Section 5.9, provided that the Company must remove such notation on its records and/or rescind any such instructions to the Company's transfer agent at such time as the Certificates evidencing the Securities are not required to contain any legend in accordance with the provisions set forth above in this paragraph. Certificates for Securities subject to legend removal hereunder shall be transmitted by the Company's transfer agent to the Purchaser by crediting the account of the Purchaser's prime broker with the Depository Trust Company System as directed by the Purchaser. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary trading market with respect to the Common Stock as in effect on the date of delivery of a certificate representing Shares or Warrants Shares, as the case may be, issued with a restrictive legend.

In addition to the Purchaser's other available remedies, the Company shall pay to the Purchaser, in cash, (i) as partial liquidated damages and not as a penalty, for each $1,000 of Shares or Warrant Shares (based on the VWAP of the Common Stock on the date such Securities are submitted to the Company's transfer agent) delivered for removal of the restrictive legend and subject to this Section 5.9, $10 per Trading Day (increasing to $20 per Trading Day five (5) Trading Days after such damages have begun to accrue) for each Trading Day after the Legend Removal Date until such certificate is delivered without a legend, provided that the Purchaser shall not be entitled to any liquidated damages pursuant to this clause (i) with respect to such Securities if the Purchaser is entitled to a cash payment from the Company in accordance with the provisions set forth in clause (ii) below in connection with a Buy-In that pertains to such Securities and (ii) if the Company fails to (a) issue and deliver (or cause to be delivered) to the Purchaser by the Legend Removal Date a certificate representing the Securities so delivered to the Company by the Purchaser that is free from all restrictive and other legends and (b) if after the Legend Removal Date the Purchaser purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the Purchaser of all or any portion of the number of shares of Common Stock equal to all or any portion of the number of shares of Common Stock that the Purchaser anticipated receiving from the Company without any restrictive legend (the "Buy-In"), then, an amount equal to the excess of the Purchaser's total purchase price (including brokerage commissions and other out-of-pocket expenses, if any) for the shares of Common Stock so purchased (the "Buy-In Price") over the product of (A) the number of shares of Common Stock that the Company was required to deliver to the Purchaser by the Legend Removal Date multiplied by (B) the price at which the sell order giving rise to such Buy-In was executed. Any payments made pursuant to this 5.9 shall not constitute the Purchaser's exclusive remedy for such events; provided, however, that any payments made by the Company pursuant to this Section 5.9 shall reduce the amount of any damages that the Purchaser may be entitled to as a remedy for such events. Notwithstanding the foregoing provisions, (x) in no event shall the Company be obligated to pay any liquidated damages

pursuant to this Section 5.9 with respect to any Shares or Warrant Shares for any period of time because the Company is obligated to pay to any Other Purchaser liquidated damages pursuant to Section 5.9 of the Agreement executed by such Other Purchaser with respect to their Shares and Warrant Shares for

the same period of time or (y) in no event shall the Company be obligated to pay any liquidated damages pursuant to this Section 5.9 in an aggregate amount that exceeds 10% of the purchase price paid by the Purchaser for the Shares and the Warrants pursuant to this Purchase Agreement.

The Purchaser, severally and not jointly with the Other Purchasers, agrees with the Company that the Purchaser will sell any Securities pursuant to either the registration requirements of the Securities Act, including any applicable prospectus delivery requirements, or an exemption therefrom, and that if Securities are sold pursuant to a Resale Registration Statement, they will be sold in compliance with the plan of distribution set forth therein, and acknowledges that the removal of the restrictive legend from certificates representing Securities as set forth in this Section 5.9 is predicated upon the Company's reliance upon this understanding.

5.10 Stop Transfer. When issued, the certificates representing the Shares and the Warrant Shares purchased hereunder will be subject to a stop transfer order with the Company's transfer agent that restricts the transfer of such shares except upon receipt by the transfer agent, in accordance with the provisions of Section 5.12(a) below, of a written confirmation from the Purchaser to the effect that the Purchaser has satisfied its prospectus delivery requirements or upon receipt by the transfer agent of written instructions from the Company authorizing such transfer.

5.11 Residency. The Purchaser's principal executive offices are in the jurisdiction set forth immediately below the Purchaser's name on the signature pages hereto.

5.12 Public Sale or Distribution. (a) The Purchaser hereby covenants with the Company not to make any sale of the Shares or the Warrant Shares under the Resale Registration Statement without complying with the provisions of this Purchase Agreement and without effectively causing the prospectus delivery requirement under the Securities Act to be satisfied (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule), and the Purchaser acknowledges and agrees that such Shares and Warrant Shares are not transferable on the books of the Company unless the certificate submitted to the transfer agent evidencing the Shares or the Warrant Shares, as applicable, is accompanied by a separate Purchaser's Certificate of Subsequent Sale: (i) in the form of Appendix II hereto, (ii) executed by an officer of, or other authorized person designated by, the Purchaser, and (iii) to the effect that (A) the Shares or the Warrant Shares, as applicable, have been sold in accordance with the Resale Registration Statement, the Securities Act and any applicable state securities or Blue Sky laws and (B) the prospectus delivery requirement effectively has been satisfied. The Purchaser acknowledges that there may occasionally be times when the Company must suspend the use of the prospectus (the "**Prospectus**") forming a part of the Resale Registration Statement (a "**Suspension**") until such time as an amendment to the Resale Registration Statement has been filed by the Company and declared effective by the SEC, or until such time as the Company has filed an appropriate report with the SEC pursuant

to the Exchange Act. Without the Company's prior written consent, which consent shall not unreasonably be withheld or delayed, the Purchaser shall not use any written materials to offer the Shares or the Warrant Shares for resale other than the Prospectus, including any "free writing prospectus" as defined in Rule 405 under the Securities Act. The Purchaser covenants that it will not sell any Shares or Warrant Shares pursuant to said Prospectus during the period commencing at the time when Company gives the Purchaser written notice of the suspension of the use of said Prospectus and ending at the time when the Company gives the Purchaser written notice that the Purchaser may thereafter effect sales pursuant to said Prospectus. Notwithstanding the foregoing, the Company agrees that no Suspension shall be for a period of longer than 60 consecutive days, and no Suspension shall be for a period longer than 90 days in the aggregate in any 365-day period. The Purchaser further covenants to notify the Company promptly of the sale of all of its Shares and Warrant Shares.

(b) At any time that the Purchaser is an affiliate of the Company, any resale of the Shares or the Warrant Shares that purports to be effected under Rule 144 shall comply with all of the requirements of such rule, including the "manner of sale" requirements set forth in Rule 144(f).

5.13 Organization; Validity; Enforcement. The Purchaser further represents and warrants to, and covenants with, the Company that (i) the Purchaser has full right, power, authority and capacity to enter into this Purchase Agreement and to consummate the transactions contemplated hereby and has taken all necessary action to authorize the execution, delivery and performance of this Purchase Agreement, (ii) the making and performance of this Purchase Agreement by the Purchaser and the consummation of the transactions herein contemplated will not violate any provision of the organizational documents of the Purchaser or conflict with, result in the breach or violation of, or constitute, either by itself or upon notice or the passage of time or both, a default under any material agreement, mortgage, deed of trust, lease, franchise, license, indenture, permit or other instrument to which the Purchaser is a party or, any statute or any authorization, judgment, decree, order, rule or regulation of any court or any regulatory body, administrative agency or other governmental agency or body applicable to the Purchaser, (iii) no consent, approval, authorization or other order of any court, regulatory body, administrative agency or other governmental agency or body is required on the part of the Purchaser for the execution and delivery of this Purchase Agreement or the consummation of the transactions contemplated by this Purchase Agreement, (iv) upon the execution and delivery of this Purchase Agreement, this Purchase Agreement shall constitute a legal, valid and binding obligation of the Purchaser, enforceable in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws of general application relating to or the enforcement of creditor's rights and the application of equitable principles relating to the availability of remedies, and except as rights to indemnity or contribution, including, but not limited to, the indemnification provisions set forth in Section 7.3 of this Purchase Agreement, may be limited by federal or state securities laws or the public policy underlying such laws and (v) there is not in effect any order enjoining or restraining the Purchaser from entering into or engaging in any of the transactions contemplated by this Purchase Agreement.

5.14 Short Sales. Prior to the date hereof, the Purchaser has not taken, and prior to the public announcement of the transaction after the Closing the Purchaser shall not take, any action that has caused or will cause the Purchaser to have, directly or indirectly, sold or agreed to sell any shares of Common Stock, effected any short sale, whether or not against the box, established any "put equivalent position" (as defined in Rule 16a-1(h) under the Exchange Act with respect to the Common Stock, granted any other right (including, without limitation, any put or call option) with respect to the Common Stock or with respect to any security that includes, relates to or derived any significant part of its value from the Common Stock.

SECTION 6. Survival of Agreements; Non-Survival of Company Representations and Warranties. Notwithstanding any investigation made by any party to this Purchase Agreement or by the Placement Agents, all covenants and agreements made by the Company and the Purchaser herein and in the certificates for the Shares and the Warrants delivered pursuant hereto shall survive the execution of this Purchase Agreement, the

delivery to the Purchaser of the Shares and the Warrants being purchased and the payment therefor. All representations and warranties, made by the Company and the Purchaser herein and in the certificates for the Shares and the Warrants delivered pursuant hereto shall survive for a period of one year following the later of the execution of this Purchase Agreement, the delivery to the Purchaser of the Shares and the Warrants being purchased and the payment therefor.

SECTION 7. Registration of the Shares and the Warrant Shares; Compliance with the Securities Act.

7.1 Registration Procedures and Expenses. The Company shall:

(a) as soon as practicable, but in no event later than 30 days after the Closing Date (the "**Filing Deadline**"), prepare and file with the SEC the Resale Registration Statement on Form S-3 (or on Form S-1 in the event that the Company is not eligible to use Form S-3 on the Filing Deadline) relating to the resale of the Shares and the Warrants Shares by the Purchaser and the Other Purchasers and of shares of Common Stock held by other stockholders of the Company from time to time on the NASDAQ Stock Exchange, or the facilities of any national securities exchange on which the Common Stock is then traded or in privately-negotiated transactions;

(b) use its best commercially reasonable efforts, subject to receipt of necessary information from the Purchasers, to cause the SEC to declare the Resale Registration Statement effective within 60 days after the Closing Date or, if the Resale Registration Statement is selected for review by the SEC, within 90 days after the Closing Date (the "**Effective Deadline**");

(c) promptly prepare and file with the SEC such amendments and supplements to the Resale Registration Statement and the prospectus used in connection therewith as may be necessary to keep the Resale Registration Statement effective until the earliest of (i) two years after the effective date of the Resale Registration Statement, (ii) such time as all of the Shares and the Warrant Shares purchased hereunder have been sold pursuant to the Resale Registration Statement, or (iii) such time as the Shares and the Warrant Shares

purchased hereunder become eligible for resale without any volume limitations or other restrictions pursuant to Rule 144 under the Securities Act;

(d) notwithstanding anything express or implied in this Purchase Agreement or any other Agreement to the contrary, in the event that the SEC for any reason limits the number of Shares and/or Warrant Shares that may be included and sold by the Purchasers in the Resale Registration Statement (it being understood and agreed that, for purposes of this Section 7, any reference to Shares and/or Warrant Shares may be a reference to (x) either the Shares and/or Warrant Shares purchased or that may be purchased by the Purchaser pursuant to this Purchase Agreement or upon exercise of any of the Warrants or (y) the shares of Common Stock and/or warrant shares purchased or that may be purchased by the Purchasers pursuant to the Agreements or upon exercise of any of the warrants issued pursuant to the Agreements, as the context may require), the Company shall (i) first, reduce the number of Warrant Shares included in the Resale Registration Statement on behalf of the Purchasers in whole or in part (such portion shall be allocated pro rata among such Purchasers) and, second (after reducing the number of such Warrant Shares to zero), reduce the number of Shares included in the Resale Registration Statement on behalf of the Purchasers in whole or in part (such portion shall be allocated pro rata among such Purchasers) (such excluded Warrant Shares and/or Shares, the "**Reduction Securities**"), (ii) shall give the Purchasers prompt notice of the number of such Reduction Securities excluded and the Company will not be liable for any actual damages or liquidated damages under this Agreement (including, without limitation, any liquidated damages pursuant to Section 7.6 hereof) in connection with the exclusion of such Reduction Securities or in connection with any delay in the Effective Deadline arising from any interactions between the Company and the SEC with respect to the number of Shares and/or Warrant Shares that may be included and sold by the Purchasers in the Resale Registration Statement, and (iii) use its commercially reasonable efforts at the first opportunity that is permitted by the SEC to register for resale the Reduction Securities (or such portion thereof as the SEC will allow to be registered for resale at such time) pursuant to a new registration statement covering the resale of the Reduction Securities (or such portion thereof as the SEC will allow to be registered for resale at such time) for an offering to be made on a continuous basis pursuant to Rule 415 and shall file such new registration statement with the SEC within thirty (30) calendar days following (x) the date that the SEC would allow or permit such additional registration statement to be filed or (y) the date on which the Company first learned the date that the SEC would allow or permit such additional registration statement to be filed, whichever of (x) or (y) is the later date;

(e) furnish to the Purchaser with respect to the Shares and the Warrant Shares registered under the Resale Registration Statement (and to each underwriter, if any, of such Shares and Warrant Shares) such number of copies of prospectuses and such other documents as the Purchaser may reasonably request, in order to facilitate the public sale or other disposition of all or any of the Shares and the Warrant Shares by the Purchaser;

(f) file documents required of the Company for normal Blue Sky clearance in states specified in writing by the Purchaser; provided, however, that the Company shall not be required to qualify to do business or consent to service of process in any jurisdiction in which it is not now so qualified or has not so consented;

(g) bear all expenses in connection with the procedures in paragraphs (a) through (e) of this Section 7.1 and the registration of the Shares and the Warrant Shares on behalf of the Purchasers pursuant to the Resale Registration Statement, other than fees and expenses, if any, of counsel or other advisers to the Purchaser or the Other Purchasers or underwriting discounts, brokerage fees and commissions incurred by the Purchaser or the Other Purchasers, if any in connection with the offering of the Shares and the Warrant Shares on behalf of the Purchasers pursuant to the Resale Registration Statement;

(h) (1) by 9:00 a.m. (New York City time) on the Trading Day immediately following the date hereof, issue a press release disclosing the material terms of the transactions contemplated hereby, and (2) file a Current Report on Form 8-K, including the form of Agreements as exhibits thereto, with the SEC within the time required by the Exchange Act. From and after the issuance of such press release, the Company represents to the Purchaser that it shall have publicly disclosed all material, non-public information delivered to any of the Purchasers by the Company or any of its Subsidiaries, or any of their respective officers, directors, employees or agents, in connection with the transactions contemplated by the Agreements. In addition, effective upon the issuance of such press release, the Company acknowledges and agrees that any and all confidentiality or similar obligations under any agreement, whether written or oral, between the Company, any of its Subsidiaries or any of their respective officers, directors, agents, employees

or Affiliates on the one hand, and the Purchaser or any of its Affiliates on the other hand, in connection with the transactions contemplated by this Purchase Agreement and the Warrants shall terminate, provided that the foregoing provisions of this sentence shall not be applicable if the Purchaser is Valence Life Sciences LLC, HealthCare Ventures Strategic Fund, L.P. ("**HealthCare Strategic**"), HealthCare Ventures IX, L.P. ("HealthCare IX"), HealthCare Ventures VIII, L.P. ("HealthCare VIII", and together with HealthCare Strategic and HealthCare IX, the HealthCare Parties, any affiliates of the HealthCare Parties, or Eli Lilly and Company. The Company and the Purchaser shall consult with each other in issuing any other press release or making any public statement with respect to the transactions contemplated hereby, and neither the Company nor the Purchaser shall issue any such press release nor otherwise make any such public statement without the prior consent of the Company, with respect to any such press release or public statement of the Purchaser, or without the prior consent of the Purchaser, with respect to any such press release or public statement of the Company, which consent shall not unreasonably be withheld or delayed, except if such disclosure is required by law, in which case the disclosing party shall promptly provide the other party with prior notice of such press release or public statement. Notwithstanding the foregoing, the Company shall not publicly disclose the name of the Purchaser, or include the name of the Purchaser in any filing with the SEC or any regulatory agency or Trading Market, without the prior written consent of the Purchaser, except (a) as required by United States federal securities law in connection with (i) any registration statement and (ii) the filing with the SEC of the Agreements and (b) to the extent such disclosure is required by law or Trading Market regulations, in which case the Company shall provide the Purchaser with prior notice of such disclosure permitted under this clause (b); and

(i) at any time during the period commencing on the six (6) month anniversary of the date hereof and ending at such time that the Shares and the Warrant Shares may be sold without the requirement for the Company to be in compliance with Rule 144(c)(1)

and otherwise without restriction or limitation pursuant to Rule 144, if the Company (1) shall fail for any reason to satisfy the current public information requirement under Rule 144(c) or (2) has ever been an issuer described in Rule 144(i)(1)(i) or becomes such an issuer in the future, and the Company shall fail to satisfy any condition set forth in Rule 144(i)(2) (each of the events described in the foregoing clause (1) or the foregoing clause (2) of this Section 7.1(i) being hereinafter referred to as a "Public Information Failure"), then the Company shall pay to the Purchaser, as partial liquidated damages and not as a penalty, with respect to any delay in or reduction of the Purchaser's ability to sell Shares and Warrant Shares that is due to any such Public Information Failure, an amount per 30-day period equal to 1.0% of the purchase price paid by the Purchaser for its Shares pursuant to this Purchase Agreement commencing on the day that Purchaser is unable to or delayed in Selling Shares and Warrant Shares due to a Public Information Failure (pro-rated for any period totaling less than thirty (30) days) until the earlier of (a) the date such Public Information Failure is cured and (b) such time that such Public Information Failure no longer prevents or delays the Purchaser from transferring the Shares and Warrant Shares pursuant to Rule 144; and for any such 30 day period, such payment shall be made no later than three business days following such 30 day period. Notwithstanding the foregoing provisions, in no event shall the Company be obligated to pay any liquidated damages pursuant to this Section 7.1(i) (x) if any registration statement covering the resale of the Shares and the Warrant Shares by the Purchasers pursuant to an offering to be made on a continuous basis pursuant to Rule 415 promulgated under the Securities Act has been declared effective by the SEC and remains effective, (y) with respect to any Shares or Warrant Shares for any period of time if the Company is obligated to pay to any Other Purchaser liquidated damages pursuant to Section 7.1(i) of the Agreement executed by such Other Purchaser with respect to such Shares or Warrant Shares for the same period of time, or (z) in an aggregate amount that exceeds 10% of the purchase price paid by the Purchaser for the Shares and the Warrants pursuant to this Purchase Agreement.

The Company understands that the Purchaser disclaims being an underwriter, but the Purchaser being deemed an underwriter shall not relieve the Company of any obligations it has hereunder. A draft of the proposed form of the questionnaire related to the Resale Registration Statement to be completed by the Purchaser is attached hereto as Appendix I.

It is understood and agreed that the Company has the right to take any and all steps necessary to convert the Resale Registration Statement from a Form S-1 to a Form S-3 at any time after the Company becomes eligible to do so under applicable rules and regulations of the SEC.

7.2 Transfer of Shares After Registration. The Purchaser agrees that it will not effect any disposition of the Shares or the Warrant Shares or its right to purchase the Shares or the Warrant Shares that would constitute a sale within the meaning of the Securities Act or pursuant to any applicable state securities laws, except as contemplated in the Resale Registration Statement referred to in Section 7.1 or as otherwise permitted by law, and that it will promptly notify the Company of any changes in the information set forth in the Resale Registration Statement regarding the Purchaser or its plan of distribution.

7.3 Indemnification. For the purpose of this Section 7.3:

(a) For the purpose of this Section 7.3: (i) the term "**Purchaser/Affiliate**" shall mean any affiliate of the Purchaser, including a transferee who is an affiliate of the Purchaser, and any person who controls the Purchaser or any affiliate of the Purchaser within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act; and (ii) the term "**Resale Registration Statement**" shall include any preliminary prospectus, final prospectus, free writing prospectus, exhibit, supplement or amendment included in or relating to, and any document incorporated by reference in, the Resale Registration Statement referred to in Section 7.1.

(b) The Company agrees to indemnify and hold harmless the Purchaser and each Purchaser/Affiliate, against any losses, claims, damages, liabilities or expenses, joint or several, to which the Purchaser or Purchaser/Affiliates may become subject, under the Securities Act, the Exchange Act, or any 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 the Company), insofar as such losses, claims, damages, liabilities or expenses (or actions in respect thereof as contemplated below) (i) arise out of or are based upon any untrue statement or alleged untrue statement of any material fact contained in (1) the Resale Registration Statement, including the Prospectus, financial statements and schedules, and all other documents filed as a part thereof, as amended at the time of effectiveness of the Resale Registration Statement, including any information deemed to be a part thereof as of the time of effectiveness pursuant to paragraph (b) of Rule 430A, or pursuant to Rules 430B, 430C or 434, of the Rules and Regulations, or (2) the Prospectus, in the form first filed with the SEC pursuant to Rule 424(b) of the Regulations, or filed as part of the Resale Registration Statement at the time of effectiveness if no Rule 424(b) filing is required or any amendment or supplement thereto; (ii) arise out of or are based upon the omission or alleged omission to state in any of them a material fact required to be stated therein or necessary to make the statements in the Resale Registration Statement or any amendment or supplement thereto not misleading or in the Prospectus or any amendment or supplement thereto not misleading in light of the circumstances under which they were made; or

(iii) arise out of or are based in whole or in part on any inaccuracy in the representations or warranties of the Company contained in this Purchase Agreement, or any failure of the Company to perform its obligations hereunder or under law, and will promptly reimburse the Purchaser and each Purchaser/Affiliate for any legal and other expenses as such expenses are reasonably incurred by the Purchaser or such Purchaser/Affiliate in connection with investigating, defending or preparing to defend, settling, compromising or paying any such loss, claim, damage, liability, expense or action; provided, however, that the Company will not be liable for amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, and the Company will not be liable in any such case to the extent that any such loss, claim, damage, liability or expense arises out of or is based upon (A) an untrue statement or alleged untrue statement or omission or alleged omission made in the Resale Registration Statement, the Prospectus or any amendment or supplement thereto in reliance upon and in conformity with written information furnished to the Company by or on behalf of the Purchaser expressly for use therein; (B) the failure of the Purchaser to comply with the covenants and agreements contained in Sections 5.12 or 7.2 hereof respecting the sale of the Shares and the Warrants; (C) the inaccuracy of any representation or warranty made by the Purchaser herein; or (D) any

statement or omission in any Prospectus that is corrected in any subsequent Prospectus that was delivered to the Purchaser prior to the pertinent sale or sales by the Purchaser.

(c) The Purchaser will severally, but not jointly with the Other Purchasers, indemnify and hold harmless the Company, each of its directors, each of its officers who signed the Resale Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, against any losses, claims, damages, liabilities or expenses to which the Company, each of its directors, each of its officers who signed the Resale Registration Statement or controlling person may become subject, under the Securities Act, the Exchange Act, or any other federal or state statutory law or regulation, or at common law or otherwise (including in settlement of any litigation, but only if such settlement is effected with the written consent of the Purchaser) insofar as such losses, claims, damages, liabilities or expenses (or actions in respect thereof as contemplated below) arise out of or are based upon (i) any failure to comply with the covenants and agreements contained in Sections 5.12 or 7.2 hereof respecting the sale of the Shares and the Warrants; (ii) the inaccuracy of any representation or warranty made by the Purchaser herein; or (iii) any untrue or alleged untrue statement of any material fact contained in the Resale Registration Statement, the Prospectus, or any amendment or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements in the Resale Registration Statement or any amendment or supplement thereto not misleading or in the Prospectus or any amendment or supplement thereto not misleading in the light of the circumstances under which they were made, in each case under this clause (iii) 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 Resale Registration Statement, the Prospectus, or any amendment or supplement thereto, in reliance upon and in conformity with written information furnished to the Company by or on behalf of the Purchaser expressly for use therein; and will reimburse the Company, each of its directors, each of its officers who signed the Resale Registration Statement or controlling person for any legal and other expense reasonably incurred by the Company, each of its directors, each of its officers who signed the Resale Registration Statement 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 Purchaser's aggregate liability under this Section 7 shall not exceed the amount of proceeds received or that could be received by the Purchaser on the sale pursuant to the Resale Registration Statement of the Shares and the Warrant Shares purchased by the Purchaser.

(d) Promptly after receipt by an indemnified party under this Section 7.3 of notice of the threat or 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 7.3 promptly notify the indemnifying party in writing thereof, but the omission to notify the indemnifying party will not relieve it from any liability that it may have to any indemnified party for contribution or otherwise under the indemnity agreement contained in this Section 7.3 to the extent it is not prejudiced as a result of such failure. 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 may wish, jointly with all other indemnifying parties

similarly notified, to assume the defense thereof with counsel reasonably satisfactory to such indemnified party; provided, however, if the defendants in any such action include both the indemnified party, and the indemnifying party and the indemnified party shall have reasonably concluded, based on an opinion of counsel reasonably satisfactory to the indemnifying party, that there may be a conflict of interest 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 that 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 its election to assume the defense of such action and approval by the indemnified party of counsel, the indemnifying party will not be liable to such indemnified party under this Section 7.3 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 such counsel in connection with the assumption of legal defenses in accordance with the proviso to the preceding sentence (it being understood, however, that the indemnifying party shall not be liable for the expenses of more than one separate counsel, reasonably satisfactory to such indemnifying party, representing all of the indemnified parties who are parties to such action) or (ii) the indemnifying party shall not have employed counsel reasonably satisfactory to the indemnified party to represent the indemnified party within a reasonable time after notice of commencement of action, in each of which cases the reasonable fees and expenses of counsel shall be at the expense of the indemnifying party. The indemnifying party shall not be liable for any settlement of any action without its written consent. In no event shall any indemnifying party be liable in respect of any amounts paid in settlement of any action unless the indemnifying party shall have approved in writing the terms of such settlement; provided that such consent shall not be unreasonably withheld. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement of any pending or threatened proceeding in respect of which any indemnified party is or could have been a party and indemnification could have been sought hereunder by such indemnified party from all liability on claims that are the subject matter of such proceeding, unless such settlement (x) includes an unconditional release of such Indemnified Person, in form and substance reasonably satisfactory to such Indemnified Person, from all liability on claims that are the subject matter of such proceeding and (y) does not include any statement as to or any admission of fault, culpability or a failure to act by or on behalf of any Indemnified Person.

(e) If the indemnification provided for in this Section 7.3 is required by its terms but is for any reason held to be unavailable to or otherwise insufficient to hold harmless an indemnified party under paragraphs (a), (b) or (c) of this Section 7.3 in respect to any losses, claims, damages, liabilities or expenses referred to therein, then each applicable indemnifying party shall contribute to the amount paid or payable by such

indemnified party 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 and the Purchaser from the private placement of Common Stock hereunder 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 the relative fault of the Company and the Purchaser in connection with the statements or omissions

or inaccuracies in the representations and warranties in this Purchase Agreement and/or the Resale Registration Statement that 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 Purchaser on the other shall be deemed to be in the same proportion as the amount paid by the Purchaser to the Company pursuant to this Purchase Agreement for the Shares and the Warrants purchased by the Purchaser that were sold pursuant to the Resale Registration Statement bears to the difference (the "**Difference**") between the amount the Purchaser paid for the Shares and the Warrants that were sold pursuant to the Resale Registration Statement and the amount received by the Purchaser from such sale. The relative fault of the Company on the one hand and the Purchaser on the other shall be determined by reference to, among other things, whether the untrue or alleged statement of a material fact or the omission or alleged omission to state a material fact or the inaccurate or the alleged inaccurate representation and/or warranty relates to information supplied by the Company or by the Purchaser 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 paragraph (c) of this Section 7.3, 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 paragraph (d) of this Section 7.3 with respect to the notice of the threat or commencement of any threat or action shall apply if a claim for contribution is to be made under this paragraph (e); provided, however, that no additional notice shall be required with respect to any threat or action for which notice has been given under paragraph (d) for purposes of indemnification. The Company and the Purchaser agree that it would not be just and equitable if contribution pursuant to this Section 7.3 were determined solely by pro rata allocation (even if the Purchaser 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 paragraph. Notwithstanding the provisions of this Section 7.3, the Purchaser shall not be required to contribute any amount in excess of the amount by which the Difference exceeds the amount of any damages that the Purchaser has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Purchaser's obligation to contribute pursuant to this Section 7.3 are several and not joint with the Other Purchasers' obligation to contribute pursuant to Section 7.3 of the Agreements between the Other Purchasers and the Company.

7.4 Termination of Conditions and Obligations. The restrictions imposed by Section 5.12 or Section 7.2 upon the transferability of the Shares and the Warrant Shares shall cease and terminate as to any particular number of the Shares and the Warrant Shares upon the earlier of (i) the passage of two years from the effective date of the Resale Registration Statement covering such Shares or Warrant Shares, as applicable, and (ii) at such time as an opinion of counsel satisfactory in form and substance to the Company shall have been rendered to the effect that such conditions are not necessary in order to comply with the Securities Act.

7.5 Information Available. The Company, upon the reasonable request of the Purchaser, shall make available for inspection by the Purchaser, any underwriter participating in any disposition pursuant to the Resale Registration Statement and any attorney, accountant or other agent retained by the Purchaser or any such underwriter, all financial and other records, pertinent corporate documents and properties of the Company, and cause the Company's officers, employees and independent accountants to supply all information reasonably requested by the Purchaser or any such underwriter, attorney, accountant or agent in connection with the Resale Registration Statement.

7.6 Delay in Filing or Effectiveness of Registration Statement. If the Resale Registration Statement is not filed by the Company with the SEC on or prior to the Filing Deadline, then for each day following the Filing Deadline until but excluding the date the Resale Registration Statement is filed or, if earlier, until the date the Shares and the Warrant Shares purchased hereunder may be sold pursuant to Rule 144 under the Securities Act without any restriction as to the number of securities as of a particular date that can then be immediately sold (the "**Applicable Rule 144 Full Liquidity Date**"), or if the Resale Registration Statement is not declared effective by the SEC by the Effective Deadline (unless the SEC seeks to impose, or notifies the Company that the SEC is considering, a limitation in the number of shares of Common Stock that the Purchaser and the Other Purchasers may include in the Resale Registration Statement, in which case the provisions of this Section 7.6 shall not be applicable if the Resale Registration Statement is not declared effective by the SEC by the Effective Deadline), then for each day following the Effective Deadline until but excluding the date the SEC declares the Resale Registration Statement effective or, if earlier, until the Applicable Rule 144 Full Liquidity Date, the Company shall, for each such day, pay the Purchaser with respect to any such failure, as liquidated damages and not as a penalty, an amount per 30-day period equal to 1.0% of the purchase price paid by the Purchaser for its Shares pursuant to this Purchase Agreement; and for any such 30-day period, such payment shall be made no later than three business days following such 30-day period. If the Purchaser shall be prohibited from selling Shares under the Resale Registration Statement as a result of a Suspension of more than thirty (30) days or Suspensions on more than two (2) occasions of not more than thirty (30) days each in any 12-month period, then for each day prior to the Applicable Rule 144 Full Liquidity Date on which a Suspension is in effect that exceeds the maximum allowed period for a Suspension or Suspensions, but not including any day on which a Suspension is lifted, the Company shall pay the Purchaser, as liquidated damages and not as a penalty, an amount per 30-day period equal to 1.0% of the purchase price paid by the Purchaser for its Shares pursuant to this Purchase Agreement for each such 30-day period, and such payment shall be made no later than the first business day of the calendar month next succeeding the month in which such day occurs. For purposes of this Section 7.6, a Suspension shall be deemed lifted on the date that notice that the Suspension has been lifted is delivered to the Purchaser pursuant to Section 5.12 of this Purchase Agreement. Any payments made pursuant to this Section 7.6 shall not constitute the Purchaser's exclusive remedy for such events; provided, however, that any payments made by the Purchaser pursuant to this Section 7.6 shall reduce the amount of any damages that the Purchaser may be entitled to as a remedy for such events. Notwithstanding the foregoing provisions, in no event shall the Company be obligated to pay any liquidated damages pursuant to this Section 7.6 (i) with respect to any Shares or Warrant Shares for any period of time if the Company is obligated to pay to any Other Purchaser liquidated damages pursuant to Section 7.6 of the

Agreement executed by such Other Purchaser with respect to such Shares or Warrant Shares for the same period of time or (ii) in an aggregate amount that exceeds 10% of the purchase price paid by the Purchaser for the Shares and the Warrants pursuant to this Purchase Agreement. Such payments shall be made to the Purchasers in cash.

7.7 Non-Exclusive Remedy. The respective rights of indemnification of each of the Company and the Purchaser under this Section 7 shall not be exclusive of any other remedy available to either the Company or the Purchaser under applicable law.

7.8 Stockholder Approval. The Company shall hold a special meeting of shareholders (which may also be at the annual meeting of shareholders) at the earliest practical date, but in no event later than 90 days following the Closing Date, for the purpose of obtaining Stockholder Approval, with the recommendation of the Company's Board of Directors that such proposal be approved, and the Company shall solicit proxies from its shareholders in connection therewith in the same manner as all other management proposals in such proxy statement and all management-appointed proxyholders shall vote their proxies in favor of such proposal. The Company shall use its reasonable best efforts to obtain such Stockholder Approval. If the Company does not obtain Stockholder Approval at the first meeting, the Company shall call a meeting every four months thereafter to seek Stockholder Approval until the earlier of the date Stockholder Approval is obtained or the Warrants are no longer outstanding.

7.9 Future Issuances of Common Stock or Common Stock Equivalents.

(a) From the date hereof until 60 days after the effective date of the Resale Registration Statement, neither the Company nor any Subsidiary shall issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of Common Stock or Common Stock Equivalents. Notwithstanding the foregoing, this Section 7.9(a) shall not apply in respect of an Exempt Issuance.

(b) For the purpose of this Purchase Agreement, the following definitions shall apply:

(i) "Common Stock Equivalents" means any securities of the Company or the Subsidiaries 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.

(ii) "Exempt Issuance" means the issuance of (1) shares of Common Stock or options to employees, consultants, officers or directors of the Company pursuant to any stock or option plan duly adopted for such purpose by the Company's Board of Directors or a majority of the members of a committee established for such purpose; (2) shares of Common Stock upon exercise, exchange or conversion of securities that are issued and outstanding on the Closing Date and that are exercisable, exchangeable for or convertible into shares of Common

Stock, provided that such securities have not been amended since the Closing Date to increase the number of such shares of Common Stock or to decrease the exercise, exchange or conversion price of such securities; (3) securities in accordance with existing obligations of the Company to Company employees, consultants, officers, directors or agents; (4) securities to any current or former employees, consultants, officers, directors or agents of the Company in satisfaction of or in settlement of any disputes or controversies concerning the terms of such person's employment, consulting or other service relationship with the Company or the terms of such person's separation from the Company; (5) securities pursuant to a merger, consolidation, acquisition, business combination, licensing, joint venture, strategic alliance, corporate partnering or similar transaction the primary purpose of which is not to raise equity capital; (6) securities in connection with any stock split, stock dividend, recapitalization or similar transaction by the Company; (7) securities as consideration, whether in whole or in part, to any person or entity for providing services or supplying goods to the Company; (8) securities to any entity which is or will be, itself or through its subsidiaries or affiliates, an operating company in a business related to or complementary with the business of the Company and in which the Company receives material benefits in addition to the investment of funds; (9) securities pursuant to any equipment leasing arrangement; (10) securities to any commercial bank, finance company or similar institution in connection with any loan, credit facility or lending arrangement entered into by the Company with any such bank finance company or similar institution; (11) securities to pay all or a portion of any investment banking, finders or similar fee or commission, which entitles the holders thereof to acquire shares of Common Stock at a price not less than the market price of the Common Stock on the date of such issuance and which is not subject to any adjustments other than on account of stock splits and reverse stock splits; and (12) securities as may be mutually agreed in writing prior to their issuance by the Company and either (I) those holders of warrants issued pursuant to the Agreements that represent at least 70% of the shares of Common Stock issuable upon exercise of all outstanding warrants issued pursuant to the Agreements or (II) the Purchaser.

SECTION 8. Placement Agents. The Purchaser acknowledges that the Company intends to pay to the Placement Agents a fee in respect of the sale of the Shares and the Warrants to the Purchaser. The Purchaser and the Company agree that the Purchaser shall not be responsible for such fee and that the Company will indemnify and hold harmless the Purchaser and each Purchaser/Affiliate against any losses, claims, damages, liabilities or expenses, joint or several, to which the Purchaser or Purchaser/Affiliate may become subject with respect to such fee. Each of the parties hereto represents that, on the basis of any actions and agreements by it, there are no other brokers or finders entitled to compensation in connection with the sale of the Shares and the Warrants to the Purchaser.

SECTION 9. Independent Nature of Purchasers' Obligations and Rights. The obligations of the Purchaser under this Purchase Agreement are several and not joint with the obligations of any Other Purchaser, and no Purchaser shall be responsible in any way for the performance of the obligations of any Other Purchaser under the Agreements. The decision of the Purchaser to purchase the Shares and the Warrants pursuant to the Agreements has been made by the Purchaser independently of any Other Purchaser. Nothing contained in the Agreements, and no action taken by the Purchaser or any Other Purchaser pursuant thereto, shall be deemed to constitute the Purchasers as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Purchasers are in any way acting in concert

or as a group with respect to such obligations or the transactions contemplated by the Agreements. The Purchaser acknowledges that no Other Purchaser has acted as agent for the Purchaser in connection with making the Purchaser's investment hereunder and that no Other Purchaser will be acting as agent of the

Purchaser in connection with monitoring the Purchaser's investment in the Shares and the Warrants or enforcing the Purchaser's rights under this Purchase Agreement. The Purchaser shall be entitled to independently protect and enforce its rights, including without limitation the rights arising out of this Purchase Agreement, and it shall not be necessary for any Other Purchaser to be joined as an additional party in any proceeding for such purpose.

SECTION 10. Notices. All notices, requests, consents and other communications hereunder shall be in writing, shall be mailed by first-class registered or certified airmail, e-mail, confirmed facsimile or nationally recognized overnight express courier postage prepaid, and shall be deemed given when so mailed and shall be delivered as addressed as follows:

(a) if to the Company, to:

Leap Therapeutics, Inc.
47 Thorndike Street, Suite B1-1
Cambridge, MA 02141
Attention: Chief Executive Officer
Facsimile: 617-588-1606

with a copy to:

Morgan, Lewis & Bockius LLP
One Federal Street
Boston, MA 02110
Attention: Julio E. Vega, Esquire
William S. Perkins, Esquire
Telecopier: (617) 951-8736

or to such other person at such other place as the Company shall designate to the Purchaser in writing; and

(b) if to the Purchaser, at its address as set forth at the end of this Purchase Agreement, or at such other address or addresses as may have been furnished to the Company in writing.

SECTION 11. Changes. This Purchase Agreement may not be modified, amended or waived except pursuant to an instrument in writing signed by the Company and the Purchaser; provided, however, that any of the provisions of Section 7 of this Purchase Agreement may be modified, amended or waived pursuant to an instrument in writing signed by the Company and those Purchasers (or their assignees or transferees) that, at the time of modification, amendment or waiver, are the holders of shares of Common Stock issued pursuant

to the Agreements that represent at least 70% of all of the shares of Common Stock issued to the Purchasers pursuant to the Agreements so long as any such modification, amendment or waiver applies to all Agreements in the same fashion. Any amendment or waiver effected in accordance with this Section 11 shall be binding upon each holder of any securities purchased under this Purchase Agreement at the time outstanding, each future holder of all such securities, and the Company.

SECTION 12. Headings. The headings of the various sections of this Purchase Agreement have been inserted for convenience of reference only and shall not be deemed to be part of this Purchase Agreement.

SECTION 13. Severability. In case any provision contained in this Purchase Agreement should be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.

SECTION 14. Governing Law; Venue. This Purchase Agreement is to be construed in accordance with and governed by the federal law of the United States of America and the internal laws of the State of New York without giving effect to any choice of law rule that would cause the application of the laws of any jurisdiction other than the internal laws of the State of New York to the rights and duties of the parties. Each of the Company and the Purchaser submits to the nonexclusive jurisdiction of the United States District Court for the Southern District of New York and of any New York State court sitting in New York City for purposes of all legal proceedings arising out of or relating to this Purchase Agreement and the transactions contemplated hereby. Each of the Company and the Purchaser irrevocably waives, to the fullest extent permitted by law, any objection that it may now or hereafter have to the laying of the venue of any such proceeding brought in such a court and any claim that any such proceeding brought in such a court has been brought in an inconvenient forum. In the event of any legal proceeding arising out of or relating to this Purchase Agreement and the transactions contemplated hereby, the prevailing party in any such legal proceeding shall be entitled to recover out-of-pocket costs and expenses (including reasonable fees and disbursements of attorneys and experts) from the non-prevailing party in addition to any damage award that the non-prevailing party may be entitled to recover under applicable law.

SECTION 15. Counterparts. This Purchase Agreement may be executed in counterparts, each of which shall constitute an original, but all of which, when taken together, shall constitute but one instrument, and shall become effective when one or more counterparts have been signed by each party hereto and delivered to the other parties. Facsimile or pdf signatures shall be deemed original signatures.

SECTION 16. Entire Agreement. This Purchase Agreement and the instruments referenced herein contain the entire understanding of the parties with respect to the matters covered herein and therein and, except as specifically set forth herein or therein, neither the Company nor the Purchaser makes any representation, warranty, covenant or undertaking with respect to such matters. Each party expressly represents and warrants that it is not relying on any oral or written representations, warranties, covenants or agreements outside of this Purchase Agreement.

SECTION 17. Fees and Expenses. Except as set forth herein, each of the Company and the Purchaser shall pay its respective fees and expenses related to the transactions contemplated by this Purchase Agreement.

SECTION 18. Parties. This Purchase Agreement is made solely for the benefit of and is binding upon the Purchaser and the Company and to the extent provided in Section 7.3, any person entitled to indemnification thereunder, and their respective executors, administrators, successors and assigns and, subject to the provisions of Section 7.3, no other person shall acquire or have any right under or by virtue of this Purchase Agreement. The term "successor and assigns" shall not include any subsequent purchaser, as such purchaser, of the Shares and the Warrants sold to the Purchaser pursuant to this Purchase Agreement.

SECTION 19. Further Assurances. Each party agrees to cooperate fully with the other parties and to execute such further instruments, documents and agreements and to give such further written assurance as may be reasonably requested by any other party to evidence and reflect the transactions described herein and contemplated hereby and to carry into effect the intents and purposes of this Purchase Agreement.

[Remainder of Page Left Intentionally Blank]

IN WITNESS WHEREOF, the parties have caused this Purchase Agreement to be executed by their duly authorized representatives as of the day and year first above written.

LEAP THERAPEUTICS, INC.

By: _____
Name:
Title:

Print or Type:

_____
Name of Purchaser

_____
Jurisdiction of Purchaser's Executive Offices

_____
Name of Individual representing Purchaser

_____
Title of Individual representing Purchaser

Signature by:

Individual representing Purchaser:

_____

Address: _____

_____

_____

Telephone: _____

Facsimile: _____

E-mail: _____

List of Purchasers

Investor	Shares
Valence Helix Investments, LLC	258,833
Kingsbrook Opportunities Master Fund LP	41,085

Lincoln Park Capital Fund, LLC	50,000
Tiburon Opportunity Fund LP	82,169
DAFNA Lifesciences LP	145,440
DAFNA Lifesciences Select LP	101,068
Empery Asset Master, LTD	30,554
Empery Tax Efficient, LP	14,588
Empery Tax Efficient II, LP	37,027
Sabby Volatility Warrant Master Fund, Ltd.	200,000
CVI Investments, Inc.	85,000
Julio E. Vega	32,868
Eli Lilly and Company	821,693
Healthcare Ventures IX, L.P.	1,057,769
Total	**2,958,094**

Exhibit A
Form of Warrant

Exhibit B
Form of Voting Agreement

APPENDIX I

SUMMARY INSTRUCTION SHEET FOR PURCHASER

(to be read in conjunction with the entire Purchase Agreement which follows)

A. Complete the following items on **BOTH** Purchase Agreements (Sign two originals):

1. Signature Page:

   (i) Name of Purchaser

   (ii) If an Institution, Name of Individual representing Purchaser

   (iii) If an Institution, Title of Individual representing Purchaser

   (iv) Signature of Individual / Individual representing Purchaser

2. Appendix I — Stock Certificate Questionnaire/Resale Registration Statement Questionnaire:

   Provide the information requested by the Stock Certificate Questionnaire and the Resale Registration Statement Questionnaire.

3. Return **BOTH** properly completed and signed Purchase Agreements including the properly completed Appendix I to (initially by email with original by overnight delivery):

   Raymond James & Associates, Inc.
   277 Park Avenue, Fourth Floor
   New York, NY 10176
   Attention: Ed Newman
   E-mail: Ed.Newman@RaymondJames.com

B. Instructions regarding the transfer of funds for the purchase of [Shares] / [Warrant Shares] will be sent by email to the Purchaser by the Placement Agents at a later date.

C. Upon the resale of the [Shares] / [Warrant Shares] by the Purchasers after the Registration Statement covering the [Shares] / [Warrant Shares] is effective, as described in the Purchase Agreement, the Purchaser:

1. must deliver a current prospectus of the Company to the buyer (prospectuses must be obtained from the Company at the Purchaser's request); and

2. must send a letter in the form of Appendix II to the Company so that the [Shares] / [Warrant Shares] may be properly transferred.

LEAP THERAPEUTICS, INC.
STOCK CERTIFICATE QUESTIONNAIRE

Pursuant to Section 3 of the Purchase Agreement, please provide us with the following information:

1. The exact name that your [Shares] / [Warrant Shares] are to be registered in (this is the name that will appear on your [stock] / [warrant] certificate(s)). You may use a nominee name if appropriate:

2. The relationship between the Purchaser of the [Shares] / [Warrant Shares] and the Registered Holder listed in response to item 1 above:

3. The mailing address of the Registered Holder listed in response to item 1 above:

4. The Tax Identification Number of the Registered Holder listed in response to item 1 above:

COMPANY
RESALE REGISTRATION STATEMENT QUESTIONNAIRE

In connection with the preparation of the Registration Statement, please provide us with the following information:

SECTION 1. Pursuant to the "Selling Stockholder" section of the Registration Statement, please state [your] / [your organization's] name exactly as it should appear in the Registration Statement:

SECTION 2. Please provide the number of shares that [you] / [your organization] will own immediately after Closing, including those [Shares] / [Warrant Shares] purchased by your organization pursuant to this Purchase Agreement and those shares purchased by [you] / [your organization] through other transactions and provide the number of shares that [you] / [your organization] has the right to acquire within 60 days of Closing:

SECTION 3. [Have you] / [Has your organization] had any position, office or other material relationship within the past three years with the Company or its affiliates?

o Yes o No

If "yes," please indicate the nature of any such relationships below:

SECTION 4. (a) Are you (i) a FINRA Member (see definition), (ii) a Controlling (see definition) shareholder of a FINRA Member, (iii) a Person Associated with a Member of the FINRA (see definition), or (iv) an Underwriter or a Related Person (see definition below) with respect to the proposed offering; (b) do you own any shares or other securities of any FINRA Member not purchased in the open market; or (c) have you made any outstanding subordinated loans to any FINRA Member?

Answer: o Yes o No If "yes," please describe below

FINRA Member. The term "FINRA Member" means either any broker or dealer admitted to membership in the Financial Industry Regulatory Authority (formerly, the National Association of Securities Dealers, Inc., "FINRA"). (FINRA Manual, By-laws of FINRA Regulation, Inc. Article I, Definitions)

Control. The term "control" (including the terms "controlling," "controlled by" and "under common control with") means the possession, direct or indirect, of the power, either individually or with others, to direct or cause the direction of the management and policies of a person, whether through the ownership of voting securities, by contract, or otherwise. (Rule 405 under the Securities Act of 1933, as amended)

Person Associated with a member of the FINRA. The term "person associated with a member of the FINRA" means every sole proprietor, partner, officer, director, branch manager or executive representative of any FINRA Member, or any natural person occupying a similar status or performing similar functions, or any natural person engaged in the investment banking or securities business who is directly or indirectly controlling or controlled by a FINRA

Member, whether or not such person is registered or exempt from registration with the FINRA pursuant to its bylaws. (FINRA Manual, By-laws of FINRA Regulation, Inc. Article I, Definitions)

Underwriter or a Related Person. The term "underwriter or a related person" means, with respect to a proposed offering, underwriters, underwriters' counsel, financial consultants and advisors, finders, members of the selling or distribution group, and any and all other persons associated with or related to any of such persons. (FINRA Interpretation)

APPENDIX II

Continental Stock Transfer & Trust Company
One State Street, 30th Floor
New York, New York 10004
Attention: [ ]

PURCHASER'S CERTIFICATE OF SUBSEQUENT SALE

The undersigned, [an officer of, or other person duly authorized by] hereby certifies
[fill in official name of institution]
that [they are] / [said institution is] the Purchaser of the shares evidenced by the attached certificate,

and as such, sold such shares on in accordance with the terms of the
[date]
Purchase Agreement and in accordance with Registration Statement
number or otherwise in accordance with
[fill in the number of or otherwise identify Registration Statement]
the Securities Act of 1933, as amended, and, in the case of a transfer pursuant to the Registration Statement, the requirement of delivering a current prospectus by the Company has been complied with in connection with such sale.

Print or Type:

Name of Purchaser: _____

[Name of Individual representing Purchaser:] _____

[Title of Individual representing Purchaser:] _____

Signature by:

[Purchaser] / [Individual representing Purchaser]: _____

EXECUTION VERSION

PLACEMENT AGENCY AGREEMENT

November 14, 2017

Raymond James & Associates, Inc.
277 Park Avenue, Suite 410
New York, New York 10172

Ladenburg Thalmann & Co. Inc.
277 Park Avenue, 26th Floor
New York, New York 10172

Ladies and Gentlemen:

Leap Therapeutics, Inc., a Delaware corporation (the "*Company*"), proposes, subject to the terms and conditions of this Placement Agency Agreement (the "*Agreement*") and the Purchase Agreements (defined below), to issue and sell to certain institutional investors (each, a "*Purchaser*" and collectively, the "*Purchasers*") (i) up to an aggregate of 2,958,094 shares (the "*Shares*") of the Company's common stock, par value $0.001 per share (the "*Common Stock*"), and (ii) 2,958,094 warrants (the "*Warrants*") to purchase up to an additional 2,958,094 shares of Common Stock. The shares of Common Stock issuable upon exercise of the Warrants are referred to herein as the "*Warrant Shares.*" The Shares and the Warrants are referred to herein, collectively, as the "*Securities.*" The Company desires to engage Raymond James & Associates, Inc. and Ladenburg Thalmann & Co. Inc. as the placement agents in connection with such issuance and sale of the Securities.

The Company hereby confirms its agreement with you as follows:

Section 1. Agreement to Act as Placement Agent.

(a) On the basis of the representations, warranties and agreements of the Company herein contained, and subject to all the terms and conditions of this Agreement, Raymond James & Associates, Inc. and Ladenburg Thalmann & Co. Inc. shall be the Company's exclusive placement agents (in such capacity, the "*Placement Agents*"), acting on a reasonable best efforts basis, in connection with the issuance and sale by the Company of the Securities to the Purchasers in a private placement exempt from registration under the Securities Act of 1933, as amended (the "*Securities Act*"), pursuant to Section 4(a)(2) thereof, with the terms of the offering to be subject to market conditions and negotiations among the Company, the Placement Agents and the prospective Purchasers (such offering shall be referred to herein as the "*Offering*"). As compensation for services rendered, and provided that any of the Securities are sold to Purchasers in the Offering, on the Closing Date (as defined in Section 1(c) hereof) of the Offering, the Company shall pay to the Placement Agents an amount in the aggregate equal to 2.2% of the gross proceeds received by the Company from the sale of the Securities (the "*Placement Fee*"). The Placement Agents will not receive any fees in connection with the exercise of the Warrants. The sale of the Securities shall be made pursuant to purchase agreements in the form included as Exhibit A-2 hereto (each, a "*Purchase Agreement*" and collectively, the "*Purchase Agreements*") on the terms described on Exhibit B hereto. The Company shall have the sole right to accept offers to purchase the Securities and may reject any such offer in whole or in part.

(b) This Agreement shall not give rise to any commitment by the Placement Agents to purchase any of the Securities, and the Placement Agents shall have no authority to bind the Company to accept offers to purchase the Securities. The Placement Agents shall act on a reasonable best efforts basis and do not guarantee that they will be able to raise new capital in the Offering. The Placement Agents may retain other brokers or dealers to act as sub-agents on their behalf in connection with the Offering, the fees of which shall be paid out of the Placement Fee. Prior to the earlier of (i) the date on which this Agreement is terminated and (ii) the Closing Date, the Company shall not, without the prior written consent of the Placement Agents, solicit or accept offers to purchase Securities (other than pursuant to the exercise of options or warrants to purchase Common Stock that are outstanding at the date hereof) otherwise than through the Placement Agents in accordance herewith.

(c) Payment of the purchase price for, and delivery of, the Securities shall be made at a closing (the "*Closing*") at the offices of Morgan, Lewis & Bockius LLP, counsel for the Company, located at One Federal Street, Boston, Massachusetts 02110, promptly following the satisfaction of all conditions for Closing set forth in the Purchase Agreements (the "*Closing Conditions*") or on such later date or at such different location as the parties shall agree in writing, but not prior to or later than the third Business Day (as defined herein) after, the date that the Closing Conditions have been satisfied or waived by the appropriate party (such date of payment and delivery being herein called the "*Closing Date*"). All such actions taken at the Closing shall be deemed to have occurred simultaneously. No Shares and Warrants which the Company has agreed to sell pursuant to this Agreement and the Purchase Agreements shall be deemed to have been purchased and paid for, or sold by the Company, until such Shares and Warrants shall have been delivered to the Purchaser thereof against payment therefor by such Purchaser. If the Company shall default in its obligations to deliver the Shares and Warrants to a Purchaser whose offer it has accepted, the Company shall indemnify and hold the Placement Agents harmless against any loss, claim or damage incurred by the Placement Agents arising from or as a result of such default by the Company. "*Business Day*" shall mean any day other than a Saturday, a Sunday or a legal holiday or a day on which banking institutions or trust companies are authorized or obligated by law to close in New York City.

(d) On the Closing Date and on each closing date of the purchase and sale of Warrant Shares, (i) the Company shall deliver, or cause to be delivered, the Securities to the Purchasers or their designees, and the Purchasers shall deliver, or cause to be delivered, the purchase price for their respective Securities to the Company pursuant to the terms of the Purchase Agreements and (ii) the Company will wire the amounts owed to the Placement Agents as provided in this Agreement.

(e) The Securities shall be registered in such names and in such denominations as the Placement Agents shall request by written notice to the Company.

(f) The Securities shall bear an appropriate restrictive legend referring to the fact that the Securities were sold in reliance upon the exemption from registration under the Securities Act provided by Section 4(a)(2) thereof. At such time as the registration statement filed by the Company pursuant to the Purchase Agreement (the "*Resale Registration Statement*") becomes effective, the Company shall deliver to the Company's transfer agent written instructions in proper form to the effect that, notwithstanding any legend that is set forth in any certificate or certificates representing any of the Securities being purchased pursuant to the Purchase Agreements, the Company's transfer agent can implement and effect any proposed sale by the Purchasers of any of such Securities if such proposed sale is under the Resale Registration Statement and is accompanied by a separate certificate of subsequent sale from the applicable Purchaser in the form prescribed under the Purchase Agreement certifying that (A) the Securities are being sold in accordance with the Resale Registration Statement, the Securities Act and applicable state securities or Blue Sky laws and (B) the prospectus delivery requirements under the Securities Act have been satisfied.

Section 2. Representations, Warranties and Agreements of the Company.

Except as disclosed in the reports, schedules, forms, statements and other documents filed by the Company under the Securities Exchange Act of 1934, as amended (the "*Exchange Act*") (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, and any amendment filed in relation thereto, being collectively referred to herein as the "*SEC Reports*"), which disclosures qualify these representations and warranties in their entirety, the Company hereby represents, warrants and covenants to the Placement Agents as of the date hereof, and as of the Closing Date, as follows:

(a) Organization and Qualification. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of its jurisdiction of incorporation and the Company is qualified to do business as a foreign corporation in each jurisdiction in which qualification is required, except where failure to so qualify would not have a Material Adverse Effect (as defined herein). Each of the Company's subsidiaries (each, a "*Subsidiary*" and collectively, the "*Subsidiaries*") is a direct or indirect wholly owned subsidiary of the Company. Each Subsidiary is duly organized, validly existing and in good standing under the laws of its jurisdiction of incorporation and is qualified to do business as a foreign corporation in each jurisdiction in which qualification is required, except where failure to so qualify would not have a Material Adverse Effect.

(b) Authorized Capital Stock. As of June 30, 2017, the Company had duly authorized and validly issued outstanding capitalization as set forth in the SEC Reports. The issued and outstanding shares of Common Stock have been duly authorized and validly issued, are fully paid and nonassessable, have been issued in compliance with all federal and state securities laws, were not issued in violation of or subject to any preemptive rights or other rights to subscribe for or purchase securities, and, as of the date of the Purchase Agreements, conform in all material respects to the description contained in the SEC Reports. The Company does not have outstanding, as of the date of the Purchase Agreements, any options to purchase, or any preemptive rights or other rights to subscribe for or to purchase, any securities or obligations convertible into, or any contracts or commitments to issue or sell, shares of its capital stock or any such options, rights, convertible securities or obligations. With respect to each of the Subsidiaries (i) all the issued and outstanding shares of such Subsidiary's capital stock have been duly authorized and validly issued, are fully paid and nonassessable, have been issued in compliance with all federal and state securities laws, were not issued in violation of or subject to any preemptive rights or other rights to subscribe for or purchase securities, and (ii) there are no outstanding options to purchase, or any preemptive rights or other rights to subscribe for or to purchase, any securities or obligations convertible into, or any contracts or commitments to issue or sell, shares of such Subsidiary's capital stock or any such options, rights, convertible securities or obligations.

(c) Issuance, Sale and Delivery of the Shares and the Warrants. The Securities being purchased pursuant to the Purchase Agreements have been duly authorized and, when issued, delivered and paid for in the manner set forth in the Purchase Agreements, and with respect to the Warrant Shares, upon payment of the exercise price pursuant to the terms of the Warrants, will be validly issued, fully paid and nonassessable and free and clear of all liens, encumbrances and rights of refusal of any kind and the Purchaser shall be entitled to all rights accorded to a holder of Common Stock.. The Warrant Shares have been duly and validly reserved from the Company's authorized capital stock. Except as set forth in the Purchase Agreement, no stockholder of the Company has any right to require the Company to register the sale of any capital stock owned by such stockholder under the Resale Registration Statement. No further approval or authority of the stockholders or the Board of Directors of the Company will be required for the issuance and sale of the Shares and the Warrants to be sold by the Company as contemplated in the Purchase Agreements.

(d) Due Execution, Delivery and Performance of the Agreement. The Company has full legal right, corporate power and authority to enter into this Agreement and the Purchase Agreements and perform the transactions contemplated hereby and thereby. This Agreement and the Purchase Agreements have been duly authorized, executed and delivered by the Company. This Agreement and the Purchase Agreements constitute legal, valid and binding agreements of the Company, enforceable against the Company in accordance with their terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws of general application relating to or affecting the enforcement of creditors' rights and the application of equitable principles relating to the availability of remedies, and except as rights to indemnity or contribution, including but not limited to, indemnification provisions set forth in Section 6 hereof may be limited by federal or state securities law or the public policy underlying such laws. The execution and performance of this Agreement and the Purchase Agreements by the Company and the consummation of the transactions herein and therein contemplated will not violate any provision of the certificate of incorporation or bylaws of the Company or the organizational documents of any Subsidiary and will not result in the creation of any lien, charge, security interest or encumbrance upon any assets of the Company or any Subsidiary pursuant to the terms or provisions of, or will not conflict with, result in the breach or violation of, or constitute, either by itself or upon notice or the passage of time or both, a default under any agreement, mortgage, deed of trust, lease, franchise, license, indenture, permit or other instrument to which the Company or any Subsidiary is a party or by which the Company or any Subsidiary or their respective properties may be bound or affected and in each case that would have a Material Adverse Effect or any statute or any authorization, judgment, decree, order, rule or regulation of any court or any regulatory body, administrative agency or other governmental agency or body applicable to the Company or any Subsidiary or any of their respective properties. No consent, approval, authorization or other order of any court, regulatory body, administrative agency or other governmental agency or body is required for the execution and delivery of this Agreement, the Purchase Agreements or the consummation of the transactions contemplated herein and therein, except for compliance with the Blue Sky laws and federal securities laws applicable to the offering of the Shares and the Warrants. For the purposes of this Agreement, the term "*Material Adverse Effect*" shall mean a material adverse effect on the condition (financial or otherwise), properties, business, prospects or results of operations of the Company and its Subsidiaries, taken as a whole, except any of the following, either alone or in combination, shall not be deemed a Material Adverse Effect: (i) effects caused by changes or circumstances affecting general economic or political conditions or conditions in securities markets or that

are generally applicable to the industry in which the Company or its Subsidiaries operate, provided that such effects do not adversely affect the Company and its Subsidiaries, taken as a whole, in a disproportionate manner, or (ii) effects caused by any event, occurrence or condition resulting from or relating to the taking of any action in accordance with this Agreement and the Purchase Agreements.

(e) Accountants. EisnerAmper LLP, who have certified certain financial statements of the Company, whose report is included in the SEC Reports, are registered independent public accountants as required by the Securities Act and the rules and regulations promulgated thereunder and by the rules of the Public Accounting Oversight Board. There are no disagreements of any kind presently existing between the Company and EisnerAmper LLP.

(f) No Defaults or Consents. Neither the execution, delivery and performance of this Agreement or any Purchase Agreement by the Company nor the consummation of any of the transactions contemplated hereby or thereby (including, without limitation, the issuance and sale by the Company of the Shares and the Warrants) will give rise to a right to terminate or accelerate the due date of any payment due under, or conflict with or result in the breach of any term or provision of, or constitute a default (or an event which with notice or lapse of time or both would constitute a default) under, except such defaults that individually or in the aggregate would not cause a Material Adverse Effect, or require any consent or waiver under, or result in the execution or imposition of any lien,

charge or encumbrance upon any properties or assets of the Company or its Subsidiaries pursuant to the terms of, any indenture, mortgage, deed of trust or other agreement or instrument to which the Company or any of its Subsidiaries is a party or by which either the Company or its Subsidiaries or any of its or their properties or businesses is bound, or any franchise, license, permit, judgment, decree, order, statute, rule or regulation applicable to the Company or any of its Subsidiaries or violate any provision of the charter or by-laws of the Company or any of its Subsidiaries, except for such consents or waivers which have already been obtained and are in full force and effect.

(g) Contracts. Each contract that is material to the business of the Company and its Subsidiaries has been duly and validly authorized, executed and delivered by the Company or such Subsidiary, as applicable, and constitute the legal, valid and binding agreements of the Company or such Subsidiary, as applicable, enforceable by and against it in accordance with their respective terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws relating to enforcement of creditors' rights generally, and general equitable principles relating to the availability of remedies, and except as rights to indemnity or contribution may be limited by federal or state securities laws and the public policy underlying such laws.

(h) No Actions. There are no legal or governmental actions, suits or proceedings pending or, to the Company's knowledge, threatened against the Company or any Subsidiary before or by any court, regulatory body or administrative agency or any other governmental agency or body, domestic, or foreign, which actions, suits or proceedings, individually or in the aggregate, might reasonably be expected to have a Material Adverse Effect; and no labor disturbance by the employees of the Company or its Subsidiaries exists or, to the knowledge of the Company, is imminent, that might reasonably be expected to have a Material Adverse Effect. Neither the Company nor any Subsidiary is a party to or subject to the provisions of any injunction, judgment, decree or order of any court, regulatory body, administrative agency or other governmental agency or body that might have a Material Adverse Effect.

(i) Properties. The Company and each Subsidiary has good and marketable title to all the properties and assets described as owned by it in the SEC Reports, free and clear of all liens, mortgages, pledges, or encumbrances of any kind except those that are not material in amount and do not adversely affect the use made and proposed to be made of such property by the Company or its Subsidiaries. The Company and each Subsidiary holds its leased properties under valid and binding leases. The Company and any Subsidiary owns or leases all such properties as are necessary to its operations as now conducted.

(j) No Material Adverse Change. Since June 30, 2017 (i) the Company and its Subsidiaries have not incurred any material liabilities or obligations, indirect, or contingent, or entered into any material agreement or other transaction, in each case that are not or is not in the ordinary course of business of the Company or its Subsidiaries; (ii) the Company and its Subsidiaries have not sustained any material loss or interference with their businesses or properties from fire, flood, windstorm, accident or other calamity not covered by insurance; (iii) the Company and its Subsidiaries have not paid or declared any cash dividends or other cash distributions with respect to their capital stock and none of the Company or any Subsidiary is in default in the payment of principal or interest on any outstanding debt obligations; (iv) through the period ending on the date of the Purchase Agreements, there has not been any change in the capital stock of the Company or its Subsidiaries other than the sale of the Shares and the Warrants pursuant to the Purchase Agreements and shares or options issued pursuant to employee equity incentive plans or purchase plans approved by the Company's Board of Directors, or indebtedness material to the Company or its Subsidiaries (other than in the ordinary course of business and any required scheduled payments); (v) no event, liability, fact, circumstances, occurrence or development has occurred or exists or is reasonably expected to occur or exist with respect to the Company or its Subsidiaries or their respective businesses, properties, operations, assets or financial condition that

would be required to be disclosed by the Company under applicable securities laws at the time this representation is made or deemed to be made that has not been publically disclosed at least one (1) Business Day prior to the date that this representation is made; and (vi) there has not occurred any event that has caused or could reasonably be expected to cause a Material Adverse Effect.

(k) Regulatory Authority. Except, in each case, where such event could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, the Company and each of its Subsidiaries: (i) has not received any unresolved U.S. Food and Drug Administration ("*FDA*") or similar governmental agency or body ("*Governmental Authority*") written notice of inspectional observations, Form 483, written notice of adverse filing, warning letter, untitled letter or other similar correspondence or notice from the FDA, or any other court or arbitrator or federal, state, local or foreign governmental or regulatory authority, alleging or asserting material noncompliance with the Federal Food, Drug and Cosmetic Act (21 U.S.C. § 301 et seq.), or received any written requests or requirements to make material changes to its products by the FDA or any other Governmental Authority; (ii) is and has been in compliance with applicable health care laws, including, the Federal Food, Drug and Cosmetic Act (21 U.S.C. § 301 et seq.), the federal Anti-kickback Statute (42 U.S.C. § 1320a-7b(b)), the civil False Claims Act (31 U.S.C. §§ 3729 et seq.), the criminal False Claims Law (42 U.S.C. § 1320a-7b(a)), the Civil Monetary Penalties Law (42 U.S.C. § 1320a-7a), the Physician Payment Sunshine Act (42 U.S.C. § 1320a-7h), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, and the health care fraud criminal provisions under the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. § 1320d et seq.) ("*HIPAA*"), the exclusion laws (42 U.S.C. § 1320a-7), Medicare (Title XVIII of the Social

Security Act), Medicaid (Title XIX of the Social Security Act), HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, and the regulations promulgated pursuant to such laws, and comparable state laws, and all other foreign, federal, state and local laws relating to the regulation of the Company and its Subsidiaries (collectively, "*Health Care Laws*"); (iii) has not engaged in activities which are, as applicable, cause for false claims liability, civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, or any other state health care program or federal health care program; (iv) possesses all governmental permits and supplements or amendments thereto required by any such Health Care Laws and/or to carry on its businesses as currently conducted as described in the SEC Reports ("*Authorizations*"), and such Authorizations are valid and in full force and effect and neither the Company nor any of its Subsidiaries is in violation of any term of any such Authorizations; (v) has not received written notice of any ongoing claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any Governmental Authority alleging that any product, operation or activity is in material violation of any Health Care Laws or Authorizations and has no knowledge that any such Governmental Authority has threatened any such claim, litigation, arbitration, action, suit, investigation or proceeding; (vi) has not received written notice that any Governmental Authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and has no knowledge that any such Governmental Authority has threatened such action; (vii) has filed, obtained, maintained or submitted all reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments thereto as required by any Health Care Laws or Authorizations and all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete, correct and not misleading on the date filed (or were corrected or supplemented by a subsequent submission); (viii) is not a party to any corporate integrity agreement, deferred prosecution agreement, monitoring agreement, consent decree, settlement order, or similar agreements, or has any reporting obligations pursuant to any such agreement, plan or correction or other remedial measure entered into with any Governmental Authority; (ix) has not, nor has any officer, director, employee, agent or, to the knowledge of the Company or any Subsidiary, any distributor of the Company or any Subsidiary, made an untrue statement of a material fact or a fraudulent statement to the FDA or any other Governmental Authority, failed to disclose a material fact required to be disclosed to the FDA or any other Governmental Authority, or committed an act, made a

statement, or failed to make a statement, in each such case, related to the business of the Company or its Subsidiaries that, at the time such disclosure was made, would reasonably be expected to provide a basis for the FDA to invoke its policy respecting "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities," set forth in 56 Fed. Reg. 46191 (September 10, 1991) or for the FDA or any other Governmental Authority to invoke any similar policy; (x) has not, nor has any officer, director, employee, or, to the knowledge of the Company or any Subsidiary, any agent or distributor of the Company or any Subsidiary, been debarred or convicted of any crime or engaged in any conduct for which debarment is mandated by 21 U.S.C. § 335a(a) or any similar law or authorized by 21 U.S.C. § 335a(b) or any similar law applicable in other jurisdictions in which the Company's products or Subsidiary's product candidates are sold or intended by the Company to be sold; and (xi) neither the Company, its Subsidiaries nor their officers, directors, employees, agents or contractors has been or is currently debarred, suspended or excluded from participation in the Medicare and Medicaid programs or any other state or federal health care program.

(l) Intellectual Property. The Company and/or its 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 SEC Reports as being owned or licensed by them or which are necessary for the conduct of their respective businesses as currently conducted or as proposed to be conducted (including the commercialization of products or services described in the SEC Reports as under development), except where the failure to own, license or have such rights could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect (collectively, "*Intellectual Property*"); except as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, (i) there are no third parties who have or, to the Company's knowledge will be able to establish rights to any of the Intellectual Property of the Company or its Subsidiaries, except for, and to the extent of, the ownership rights of the owners of the Intellectual Property which the SEC Reports disclose are licensed to the Company or any of its Subsidiaries; (ii) to the Company's knowledge, there is no infringement by third parties of any Intellectual Property; (iii) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the Company's or its Subsidiaries' rights, as applicable, in or to any Intellectual Property, and the Company and its Subsidiaries are unaware of any facts that could form a reasonable basis for any such action, suit, proceeding or claim; (iv) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the validity, enforceability or scope of any Intellectual Property, and the Company is unaware of any facts that could form a reasonable basis for any such action, suit, proceeding or claim; (v) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others that the Company or any of its Subsidiaries infringes or otherwise violates (or would, upon the commercialization of any product or service described in the SEC Reports as under development, infringe or violate) any patent, trademark, tradename, service name, copyright, trade secret or other proprietary rights of others, and the Company is unaware of any facts that could form a reasonable basis for any such action, suit, proceeding or claim; (vi) the Company and/or its Subsidiaries have complied in all material respects with the terms of each agreement pursuant to which Intellectual Property has been licensed to the Company or any of its Subsidiaries, and all such agreements are in full force and effect; (vii) to the Company's knowledge, there is no patent or patent application that contains claims that interfere with the issued or pending claims of any of the Intellectual Property or that challenges the validity, enforceability or scope of any of the Intellectual Property; and (viii) to the Company's knowledge, there is no prior art that may render any patent application within the Intellectual Property unpatentable that has not been disclosed to the U.S. Patent and Trademark Office.

(m) Compliance. None of the Company nor its Subsidiaries have been advised, nor do any of them have any reason to believe, that the Company and its Subsidiaries are not conducting business in compliance with all applicable laws, rules and regulations of the jurisdictions in which it is conducting

business, including, without limitation, all applicable local, state and federal environmental laws and regulations, except where failure to be so in compliance would not have a Material Adverse Effect.

(n) Taxes. The Company and its Subsidiaries have filed on a timely basis (giving effect to extensions) all required federal, state and foreign income and franchise tax returns and has paid or accrued all taxes shown as due thereon, and none of the Company or any Subsidiary has knowledge of a tax deficiency that has been or might be asserted or threatened against it that could have a Material Adverse Effect. All tax liabilities accrued through the date hereof have been adequately provided for on the books of the Company and its Subsidiaries.

(o) Transfer Taxes. On the Closing Date, all stock transfer or other taxes (other than income taxes) that are required to be paid in connection with the sale and transfer of the Shares and the Warrants to be sold to the Purchasers pursuant to the Purchase Agreements will have been, fully paid or

provided for by the Company and its Subsidiaries and all laws imposing such taxes will have been fully complied with.

(p) Investment Company. Neither the Company nor any Subsidiary is, and, following the completion of the offering, will not be, an "investment company" or an "affiliated person" of, or "promoter" or "principal underwriter" for an investment company, within the meaning of the Investment Company Act of 1940, as amended (the "*Investment Company Act*"), and the rules and regulations of the Securities and Exchange Commission (the "*SEC*") promulgated thereunder.

(q) Offering Materials. Neither the Company nor any Subsidiary has in the past nor will it hereafter take any action independent of the Placement Agents to sell, offer for sale or solicit offers to buy any securities of the Company or its Subsidiaries that could result in the initial sale of the Shares and the Warrants not being exempt from the registration requirements of Section 5 of the Securities Act.

(r) Insurance. The Company and its Subsidiaries maintain insurance underwritten by insurers of recognized financial responsibility, of the types and in the amounts that such entities reasonably believe is adequate for their respective businesses, including, but not limited to, insurance covering all real and personal property owned or leased by such entities against theft, damage, destruction, acts of vandalism and all other risks customarily insured against, with such deductibles as are customary for companies in the same or similar businesses, all of which insurance is in full force and effect.

(s) Use of Proceeds. The Company shall use the proceeds from the sale of the Shares and the Warrants to continue to advance its clinical programs and for working capital and general corporate purposes.

(t) Non-Public Information. Neither the Company nor its Subsidiaries has disclosed to any Purchaser any information that would constitute material non-public information as of the Closing Date other than the existence of the transaction contemplated hereby. All of the disclosure furnished by or on behalf of the Company directly to the Purchaser and filed or furnished in SEC Reports regarding the Company and its Subsidiaries, their respective businesses and, if applicable, the transactions contemplated hereby, is true and correct and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. The Company acknowledges that the Purchaser has not made any representations or warranties with respect to the transactions contemplated by the Purchase Agreement other than those specifically set forth therein.

(u) Use of Purchaser Name. Except as otherwise required by applicable law or regulation, neither the Company nor its Subsidiaries shall use any Purchaser's name or the name of any of its affiliates in any advertisement, announcement, press release or other similar public communication unless it has received the prior written consent of such Purchaser for the specific use contemplated.

(v) Related Party Transactions. No transaction has occurred between or among the Company, on the one hand, and its affiliates, officers or directors on the other hand, or between any Subsidiary, on the one hand, and its affiliates, officers or directors on the other hand, that is required to have been described under applicable securities laws in the SEC Reports, that is not so described in such filings.

(w) Off-Balance Sheet Arrangements. There is no transaction, arrangement or other relationship between the Company or any Subsidiary and an unconsolidated or other off-balance sheet entity that is required to have been described under applicable securities laws in the SEC Reports that is not so disclosed or that otherwise would be reasonably likely to have a Material Adverse Effect. There are no such transactions, arrangements or other relationships with the Company or any Subsidiary that may create contingencies or liabilities that have not been otherwise disclosed by the Company in the SEC Reports.

(x) Governmental Permits, Etc. The Company and each Subsidiary has all franchises, licenses, certificates and other authorizations from such federal, state or local government or governmental agency, department or body that are currently necessary for the operation of the business of the Company and its Subsidiaries as currently conducted, except where the failure to possess currently such franchises, licenses, certificates and other authorizations is not reasonably expected to have a Material Adverse Effect. Neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any such permit that, if the subject of an unfavorable decision, ruling or finding, could reasonably be expected to have a Material Adverse Effect.

(y) Financial Statements. The financial statements of the Company, and the related notes and schedules thereto, included in the SEC Reports fairly present in all material respects the financial position, results of operations, stockholders' equity and cash flows of the Company at the dates and for the periods specified therein. Such financial statements and the related notes and schedules thereto have been prepared in accordance with generally accepted accounting principles consistently applied throughout the periods involved (except as otherwise noted therein) and all adjustments necessary for a fair presentation in all material respects of results for such periods have been made; provided, however, that the unaudited financial statements are subject to normal year-end audit adjustments (which are not expected to be material) and do not contain all footnotes required under generally accepted accounting principles.

(z) Listing Compliance. The Company complies with all requirements of the NASDAQ Stock Exchange and shall cause the Shares and the Warrant Shares to be approved for listing on the NASDAQ Stock Exchange on the Closing Date. The issuance and sale of the Shares and Warrants hereunder does not contravene the rules and regulations of the NASDAQ Stock Exchange as of the Closing Date.

(aa) Internal Accounting Controls. The Company and each Subsidiary maintains a system of internal accounting controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific 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. The Company and each Subsidiary has disclosure controls and procedures (as defined in Rules 13a 14 and 15d 14 under the Exchange Act) that are designed to ensure that material information relating to such entity is made known to such entity's principal executive officer and principal financial officer or persons performing similar functions. The

Company and each Subsidiary is otherwise in compliance in all material respects with all applicable provisions of the Sarbanes-Oxley Act of 2002, as amended, and the rules and regulations promulgated thereunder.

(bb) Foreign Corrupt Practices. Neither the Company, nor any Subsidiary, nor, to the Company's knowledge, any director, officer, agent, employee or other persons acting on behalf of the Company or any Subsidiary has, in the course of its actions for, or on behalf of, the Company (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended; or (iv) made any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any foreign or domestic government official or employee.

(cc) OFAC. Neither the Company nor any Subsidiary nor, to the Company's knowledge, any director, officer, agent, employee, affiliate or person acting on behalf of the Company or any Subsidiary is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("*OFAC*"), and the Company will not knowingly, directly or indirectly, use the proceeds of the sale of the Shares and the Warrants, or lend, contribute or otherwise make available such proceeds to any Subsidiary, joint venture partner or other person or entity, towards any sales or operations in any country sanctioned by OFAC or for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(dd) Money Laundering Laws. The operations of the Company and each Subsidiary are and have been conducted at all times in material compliance with the money laundering statutes of applicable jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any applicable governmental agency (collectively, the "*Money Laundering Laws*") and to the Company's and its Subsidiary's knowledge, no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company and/or any Subsidiary with respect to the Money Laundering Laws is pending or threatened.

(ee) Employee Relations. Neither the Company nor any Subsidiary is a party to any collective bargaining agreement or employs any member of a union. The Company and each Subsidiary believes that their relations with their employees are good. No executive officer of the Company (as defined in Rule 501(f) promulgated under the Securities Act) has notified the Company, as applicable, that such officer intends to leave the Company or any Subsidiary, as applicable, or otherwise terminate such officer's employment with the Company or any Subsidiary, as applicable. To the knowledge of the Company, no executive officer of the Company or any Subsidiaries is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement, non-competition agreement, or any other agreement or any restrictive covenant, and the continued employment of each such executive officer does not subject the Company or any Subsidiary to any liability with respect to any of the foregoing matters.

(ff) ERISA. The Company and each Subsidiary is in compliance in all material respects with all presently applicable provisions of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder (herein called "*ERISA*"); no

"reportable event" (as defined in ERISA) has occurred with respect to any "pension plan" (as defined in ERISA) for which the Company or its Subsidiaries would have any liability; neither the Company nor its Subsidiaries have incurred and do not expect to incur liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any "pension plan"; or (ii) Sections 412 or 4971 of the Internal Revenue Code of 1986, as amended, including the regulations and published interpretations thereunder (the "*Code*"); and each "Pension Plan" for which the Company or its Subsidiaries would have liability that is intended to be qualified under Section 401(a) of the Code is so qualified in all material respects and nothing has occurred, whether by action or by failure to act, which would cause the loss of such qualification.

(gg) Environmental Matters. There has been no storage, disposal, generation, manufacture, transportation, handling or treatment of toxic wastes, hazardous wastes or hazardous substances by the Company or any Subsidiary (or, to the knowledge of the Company, any of their predecessors in interest) at, upon or from any of the property now or previously owned or leased by the Company or any Subsidiary in violation in any material respect of any applicable law, ordinance, rule, regulation, order, judgment, decree or permit or that would require material remedial action under any applicable law, ordinance, rule, regulation, order, judgment, decree or permit; there has been no material spill, discharge, leak, emission, injection, escape, dumping or release of any kind into such property or into the environment surrounding such property of any toxic wastes, medical wastes, solid wastes, hazardous wastes or hazardous substances due to or caused by the Company or any Subsidiary or with respect to which the Company or any Subsidiary have knowledge; the terms "hazardous wastes," "toxic wastes," "hazardous substances" and "medical wastes" shall have the meanings specified in any applicable local, state, federal and foreign laws or regulations with respect to environmental protection.

(hh) Integration; Other Issuances of Securities. Neither the Company nor its Subsidiaries or any affiliates, nor any persons acting on its or their behalf, has issued any shares of Common Stock or shares of any series of preferred stock or other securities or instruments convertible into, exchangeable for or otherwise entitling the holder thereof to acquire shares of Common Stock which would be integrated with the sale of the Shares and the Warrants to the Purchasers pursuant to the Purchase Agreements (i) for purposes of the Securities Act and would thereby result in the Shares and the Warrants being sold to the Purchasers pursuant to the Purchase Agreements not to be exempt from the registration requirements of the Securities Act or (ii) for purposes of any applicable stockholder approval provisions, including, without limitation, under the rules and regulations of any exchange or automated quotation system on which any of the securities of the Company are listed or designated, nor will the Company or its Subsidiaries or affiliates take any action or steps that would require registration of any of the Shares or the Warrants under the Securities Act or cause the offering of the Shares and the Warrants to be integrated with other offerings. Assuming the accuracy of the representations and warranties of Purchasers, the offer and sale of the Shares and the Warrants by the Company to the Purchasers pursuant to the Purchase Agreements will be exempt from the registration requirements of the Securities Act.

(ii) No Disqualification Events. With respect to the Securities to be offered and sold hereunder in reliance on Rule 506 under the Securities Act, none of the Company, any of its predecessors, any affiliated issuer, any director, executive officer, other officer of the Company participating in the offering hereunder, any beneficial owner of 20% or more of the Company's outstanding voting equity securities, calculated on the basis of voting power, nor any promoter (as that term is defined in Rule 405 under the Securities Act) connected with the Company in any capacity at the time of sale (each, an "*Issuer Covered Person*" and, together, "*Issuer Covered Persons*") is subject to any of the "Bad Actor" disqualifications described in Rule 506(d)(1)(i) to (viii) under the Securities Act (a "*Disqualification Event*"), except for a Disqualification Event covered by Rule 506(d)(2) or (d)(3). The Company has exercised reasonable care to determine whether any Issuer Covered Person is subject to a Disqualification Event. The Company has complied, to the extent applicable, with its disclosure

obligations under Rule 506(e), and has furnished to the Purchaser a copy of any disclosures provided thereunder.

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

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

(ll) Shell Company Status; Compliance with Financial Statement Requirements. The Company has never been an issuer subject to Rule 144(i) under the Securities Act. The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the SEC with respect thereto as in effect at the time of filing.

Section 3. Covenants.

The Company covenants and agrees with the Placement Agents as follows:

(a) Use of Proceeds. The Company shall use the net proceeds from the sale of the Shares and the Warrants to continue to advance its clinical programs and for working capital and general corporate purposes.

(b) Public Communications. Prior to the Closing Date, the Company will not issue any press release or other public communication directly or indirectly or hold any press conference with respect to the Company, its condition, financial or otherwise, or the earnings, business, operations or prospects of any of them, or the offering of the Securities, without the prior written consent of the Placement Agents (such consent not to be unreasonably withheld, delayed or conditioned) unless in the reasonable judgment of the Company and its counsel, and after notification to the Placement Agents, such press release or communication is required by law, in which case the Company shall use its reasonable best efforts to allow the Placement Agents reasonable time to comment on such release or other communication in advance of such issuance.

(c) Lock-Up Period. For a period of 90 days after the date hereof (the "*Lock-Up Period*"), the Company will not directly or indirectly, (1) offer to sell, hypothecate, pledge, announce the intention to sell, contract to sell, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock, or any securities convertible into or exercisable or exchangeable for shares of Common Stock; (2) except for the Resale Registration Statement, file or cause to become effective a registration statement under the Securities Act relating to the offer and sale of any shares of Common Stock or securities convertible into or exercisable or exchangeable for shares of Common Stock; or (3) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such transaction described in clauses (1), (2) or (3) above is to be settled by delivery of shares of Common Stock or such other securities, in cash or otherwise, without the prior written consent of the Placement Agents (which consent may be withheld in their sole discretion), other than (i) the Securities to be sold pursuant to the Purchase Agreements, (ii) the issuance of shares of Common Stock pursuant to the exercise of the Warrants and other warrants or rights to purchase the shares of Common Stock outstanding or in existence on the date hereof and any Exempt Issuance (as defined herein); provided that the Company may seek any and all waivers that may be

required in connection with the performance of its obligations under this Section 3(c), and such action by the Company and the execution of any such waivers shall not violate this Section 3(c). The Company agrees not to make any public announcement during the Lock-Up Period of any intention to undertake any of the transactions described in clauses (1), (2) or (3) above. For purposes of this Section 3(c), "*Exempt Issuance*" shall mean the issuance of (A) shares of Common Stock or options to employees, consultants, officers or directors of the Company pursuant to any stock or option plan duly adopted for such purpose by the Company's Board of Directors or a majority of the members of a committee established for such purpose; (B) securities exercisable or exchangeable for or convertible into shares of Common Stock issued and outstanding on the Issuance Date, provided that such securities have not been amended since the Issuance Date to increase the number of such securities or to decrease the exercise, exchange or conversion price of such securities; (C) securities in accordance with existing obligations of the Company to Company employees, consultants, officers, directors or agents; (D) securities to any current or former employees, consultants, officers, directors or agents of the Company in satisfaction of or in settlement of any disputes or controversies concerning the terms of such person's employment, consulting or other service relationship with the Company or the terms of such person's separation from the Company; (E) securities pursuant to a merger, consolidation, acquisition, business combination, licensing, joint venture, strategic alliance, corporate partnering or similar transaction the primary purpose of which is not to raise equity capital; (F) securities in connection with any stock split, stock dividend, recapitalization or similar transaction by the Company; (G) securities as consideration, whether in whole or in part, to any person or entity for providing services or supplying goods to the Company; (H) securities to any entity which is or will be, itself or through its subsidiaries or affiliates, an operating company in a business related to or complementary with the business of the Company and in which the Company receives material benefits in addition to the investment of funds; (I) securities pursuant to any equipment leasing arrangement; (J) securities to any commercial bank, finance company or similar institution in connection with any loan, credit facility or lending arrangement entered into by the Company with any such bank finance company or similar institution; (K) securities to pay all or a portion of any investment banking, finders or similar fee or commission, which entitles the holders thereof to acquire shares of Common Stock at a price not less than the market price of the Common Stock on the date of such issuance and which is not subject to any adjustments other than on account of stock splits and reverse stock splits; and (L) securities as may be mutually agreed in writing prior to their issuance by the Company and either (I) those holders of Warrants issued pursuant to the Purchase Agreements that represent a majority of the shares of Common Stock issuable upon exercise of all outstanding Warrants issued pursuant to the Purchase Agreements or (II) the Purchaser.

(d) Stabilization. The Company will not take, directly or indirectly, any action designed, or that might reasonably be expected to cause or result in, or that will constitute, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Securities.

(e) Investment Company Act. Neither the Company nor any Subsidiary shall 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 to register as an investment company under the Investment Company Act.

Section 4. Costs and Expenses.

The Company, whether or not the transactions contemplated hereunder are consummated or this Agreement is terminated, will pay or reimburse, if paid by the Placement Agents, all costs and expenses incident to the performance of the Company's obligations under this Agreement and in connection with the transactions contemplated hereby, including but not limited to costs and expenses of or relating to (i) the issue, sale and delivery of the Securities including any stock or transfer taxes and stamp or similar duties payable upon the sale, issuance or delivery of the Securities and any printing, delivery, shipping of

the certificates representing the Securities, (ii) the fees and expenses of any transfer agent or registrar for the Securities, (iii) fees, disbursements and other charges of counsel to the Company, (iv) listing fees for the listing or quotation of the Shares and Warrant Shares on the NASDAQ Stock Exchange, and (v) the costs and expenses of the Company in connection with the marketing of the Offering and the sale of the Securities to prospective investors including, but not limited to, those related to any presentations or meetings undertaken in connection therewith; provided that the amounts reimbursed to the Placement Agents by the Company pursuant to this Section 4 and Section 7, if applicable, shall not exceed $75,000 in the aggregate.

It is understood that except as provided in this Section 4, Section 6 and Section 7 hereof, the Placement Agents shall pay all of their own expenses.

Section 5. Conditions of Placement Agents' Obligations.

The obligations of the Placement Agents hereunder are subject to the following conditions:

(a) No Action Preventing Issuance. No action shall have been taken and no statute, rule, regulation or order shall have been enacted, adopted or issued by any governmental agency or body which would, as of the Closing Date, prevent the issuance or sale of the Securities, and no injunction, restraining order or order of any other nature by any federal or state court of competent jurisdiction shall have been issued as of the Closing Date which would prevent the issuance or sale of the Securities.

(b) No Material Adverse Change.

(i) Prior to the Closing, there shall not have occurred any change, or any development involving a prospective change, in the condition, financial or otherwise, or in the earnings, business or operations of the Company and its Subsidiaries from that set forth in the SEC Reports that, in the Placement Agents' judgment, is material and adverse and that makes it, in the Placement Agents' judgment, impracticable to market the Securities.

(ii) There shall not have occurred any of the following: (A) a suspension or material limitation in trading in securities generally on the New York Stock Exchange, the NASDAQ Stock Market, the NASDAQ Global Select Market, the NASDAQ Global Market, the NASDAQ Capital Market, the NYSE American or the over-the-counter market or the establishing on such exchanges or markets by the SEC or by such exchanges or markets of minimum or maximum prices that are not in force and effect on the date hereof; (B) a suspension or material limitation in trading in the Company's securities on the NASDAQ Stock Exchange or any other exchange or market or the establishing on any such market or exchange by the SEC or by such market of minimum or maximum prices that are not in force and effect on the date hereof; (C) a general moratorium on commercial banking activities declared by either federal or any state authorities; (D) the outbreak or escalation of hostilities involving the United States or the declaration by the United States of a national emergency or war, which in the Placement Agents' judgment makes it impracticable or inadvisable to proceed with the Offering or the delivery of the Securities in the manner contemplated in the Purchase Agreements; or (E) any calamity or crisis, change in national, international or world affairs, act of God, change in the international or domestic markets, or change in the existing financial, political or economic conditions in the United States or elsewhere, that in the Placement Agents' judgment makes it impracticable or inadvisable to proceed with the Offering or the delivery of the Securities in the manner contemplated in the Purchase Agreements.

(c) Representations and Warranties. Each of the representations and warranties of the Company contained herein shall be true and correct when made and on and as of the date hereof and the Closing Date, as if made on such date (except that those representations and warranties that address matters only as of a particular date shall remain true and correct as of such date), and all covenants and agreements herein contained to be performed on the part of the Company on or prior to the Closing Date and all conditions herein contained to be fulfilled or complied with by the Company at or prior to the Closing Date shall have been duly performed, fulfilled or complied with in all material respects.

(d) Lock-Up Agreements. On or before the Closing Date, the Company shall have obtained for the benefit of the Placement Agents the agreement, in the form set forth as Exhibit C hereto, of its directors and officers listed on Schedule I hereto (each, a "*Lock-Up Agreement*" and collectively, the "*Lock-Up Agreements*").

(e) Opinion of Counsel to the Company. The Placement Agents shall have received from Morgan, Lewis & Bockius LLP, counsel to the Company, such counsel's written opinion in form and substance as is reasonably satisfactory to the Placement Agents.

(f) Officers' Certificate. The Placement Agents shall have received on the Closing Date a certificate of the Company, addressed to the Placement Agents and dated the Closing Date, signed by the Chief Executive Officer or the President and the principal financial or accounting officer of the Company to the effect that the signers of such certificate have carefully examined the SEC Reports, as well as any marketing materials used in connection with the offering of the Securities and this Agreement, and that:

(i) each of the representations, warranties and agreements of the Company in this Agreement were true and correct when originally made and are true and correct as of the date hereof and the Closing Date (except that those representations and warranties that address matters only as of a particular date shall remain true and correct as of such date); and the Company has complied with all agreements and satisfied all the conditions on its part required under this Agreement to be performed or satisfied at or prior to the Closing Date; and

(ii) since the date of the most recent financial statements included in the SEC Reports, there has been no material adverse effect on the condition (financial or otherwise), prospects, earnings, business or properties of the Company and its Subsidiaries, taken as a whole, whether or not arising from transactions in the ordinary course of business.

(g) Additional Documents. Prior to the Closing Date, the Company shall have furnished to the Placement Agents such further information, certificates and documents as the Placement Agents may reasonably request.

The documents required to be delivered by this Section 5 shall be delivered at the office of Morgan, Lewis & Bockius LLP, counsel to the Company, at One Federal Street, Boston, Massachusetts 02110, on the Closing Date.

All letters, evidence and certificates mentioned above or elsewhere in this Agreement shall be deemed to be in compliance with the provisions hereof only if they are in form and substance reasonably satisfactory to counsel for the Placement Agents.

If any condition specified in this Section 5 is not satisfied when and as required to be satisfied, this Agreement may be terminated by the Placement Agents by notice to the Company at any time prior to the Closing Date, which termination shall be without liability on the part of any party to any other party, except that Section 4, Section 6 and Section 7 hereof shall at all times be effective and shall survive such

termination.

Section 6. Indemnification and Contribution.

(a) Indemnification of the Placement Agents. The Company agrees to indemnify and hold harmless the Placement Agents, their respective affiliates, directors, officers and employees, and agents who have or who are alleged to have participated in the distribution of the Securities as Placement Agents and each respective person who controls the Placement Agents within the meaning of either the Securities Act or the Exchange Act against any and all losses, claims, damages or liabilities, joint or several, to which they or any of them may become subject under the Securities Act, the Exchange Act or other Federal or state statutory law or regulation, 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 losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based on (i) the breach of any representation, warranty, covenant or agreement made by the Company herein or in the Purchase Agreements or (ii) any untrue statement or alleged untrue statement of a material fact or a material omission by or on behalf of the Company for the purpose of offering and selling the Securities pursuant to the Purchase Agreements; provided that this indemnity shall not apply (x) to the extent that such loss, claim, liability, expense or damage resulted from the bad faith, willful misconduct or gross negligence of the Placement Agents or (y) to any matter for which the Placement Agents agree to indemnify the Company hereunder. This indemnity agreement will be in addition to any liability which the Company may otherwise have.

(b) Indemnification of the Company. On a several and no joint basis, the Placement Agents agree to indemnify and hold harmless the Company, each of its directors, each of its senior executive officers and each person who controls the Company within the meaning of either the Securities Act or the Exchange Act, to the same extent as the foregoing indemnity from the Company to the Placement Agents, but only with respect to any losses, claims, damages or liabilities that arise out of, or are based upon, any untrue statement or omission or alleged untrue statement or omission made in reliance upon and in conformity with any information relating to the Placement Agents furnished to the Company expressly for use in facilitating the offer and sale of the Securities.

(c) Notice and Procedures. Promptly after receipt by an indemnified party under this Section 6 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against the indemnifying party under this Section 6, notify the indemnifying party in writing of the commencement thereof; but the failure so to notify the indemnifying party (i) will not relieve it from liability under paragraph (a) or (b) above unless and to the extent it did not otherwise learn of such action and such failure results in the forfeiture by the indemnifying party of substantial rights and defenses and (ii) will not, in any event, relieve the indemnifying party from any obligations to any indemnified party other than the indemnification obligation provided in paragraph (a) or (b) above. The indemnifying party shall be entitled to appoint counsel of the indemnifying party's choice at the indemnifying party's expense to represent the indemnified party in any action for which indemnification is sought (in which case the indemnifying party shall not thereafter be responsible for the fees and expenses of any separate counsel retained by the indemnified party or parties except as set forth below); provided, however, that such counsel shall be reasonably satisfactory to the indemnified party. Notwithstanding the indemnifying party's election to appoint counsel to represent the indemnified party in an action, the indemnified party shall have the right to employ separate counsel (including local counsel), and the indemnifying party shall bear the reasonable fees, costs and expenses of such separate counsel if (w) the use of counsel chosen by the indemnifying party to represent the indemnified party would present such counsel with a conflict of interest, (x) the actual or potential defendants in, or targets of, any such action include both the indemnified party and the indemnifying party and the indemnified party shall have reasonably concluded 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, (y) the indemnifying party shall not have employed counsel reasonably satisfactory to the indemnified party to represent the indemnified party within a reasonable time after notice of the institution of such action or (z) the indemnifying party shall authorize the indemnified party to employ separate counsel at the expense of the indemnifying party; provided, however, that an indemnifying party shall not be liable for the fees and expenses of more than one such separate counsel (in addition to local counsel) in connection with any proceeding or related proceeding in the same jurisdiction. An indemnifying party shall not be liable for any settlement of any proceeding effected without its consent (which consent shall not be unreasonably withheld). 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 6(a) or (b) hereof, the indemnifying party agrees that it shall be liable for such fees and expenses in connection with any settlement of any proceeding effected without its written consent if (A) such settlement is entered into more than 60 days after receipt by such indemnifying party of the aforesaid request, (B) such indemnifying party shall have received notice of the terms of such settlement at least 30 days before such settlement is entered into and (C) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request or disputed in good faith the indemnified party's entitlement to such reimbursement prior to the date of such settlement. An indemnifying party will not, without the prior written consent (which consent shall not be

unreasonably withheld) of the indemnified parties, settle or compromise or consent to the entry of any judgment with respect to any pending or threatened claim, action, suit or proceeding in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified parties are actual or potential parties to such claim or action) unless such settlement, compromise or consent includes an unconditional release of each indemnified party from all liability arising out of such claim, action, suit or proceeding and does not include an admission of fault.

(d) Contribution. In the event that the indemnity provided in paragraph (b) or (c) of this Section 6 is unavailable to or insufficient to hold harmless an indemnified party for any reason, the Company and the Placement Agents severally agree to contribute to the aggregate losses, claims, damages and liabilities (including legal or other expenses reasonably incurred in connection with investigating or defending the same) (collectively "*Losses*") to which the Company and the Placement Agents may be subject in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and by the Placement Agents on the other from the offering of the Securities. If the allocation provided by the immediately preceding sentence is unavailable for any reason, the Company and the Placement Agents severally shall contribute in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and of the Placement Agents on the other in connection with the statements or omissions which resulted in such Losses as well as any other relevant equitable considerations. Benefits received by the Company shall be deemed to be equal to the total net proceeds from the Offering (before deducting expenses) received by it, and benefits received by the Placement Agents shall be deemed to be equal to the Placement Fee. Relative fault shall be determined by reference to, among other things, whether any untrue or any alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information provided by the Company on the one hand or the Placement Agents on the other, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The Company and the Placement Agents agree that it would not be just and equitable if contribution were determined by pro rata allocation or any other method of allocation which does not take account of the equitable considerations referred to above. Notwithstanding the provisions of this paragraph (d), in no event shall the Placement Agents be required to contribute any amount in excess of the amount by which the Placement Fee received by the Placement Agents with respect to the offering of the Securities exceeds the amount of any damages that the Placement Agents have otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. Notwithstanding the provisions of this paragraph (d), no

person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 6, each respective person who controls the Placement Agents within the meaning of either the Securities Act or the Exchange Act and each respective director, officer, employee, affiliate and agent of the Placement Agents shall have the same rights to contribution as the Placement Agents, and each person who controls the Company within the meaning of either the Securities Act or the Exchange Act, each senior executive officer of the Company and each director of the Company shall have the same rights to contribution as the Company, subject in each case to the applicable terms and conditions of this paragraph (d).

(e) Representations and Agreements to Survive Delivery. The obligations of the Company under this Section 6 shall be in addition to any liability which the Company may otherwise have. The indemnity and contribution agreements of the parties contained in this Section 6 and the covenants, warranties and representations of the Company contained in this Agreement shall remain operative and in full force and effect regardless of (i) any termination of this Agreement, (ii) any investigation made by or on behalf of the Placement Agents, any respective person who controls the Placement Agents within the meaning of either the Securities Act or the Exchange Act or any respective affiliate of the Placement Agents, or by or on behalf of the Company, its directors or officers or any person who controls the Company within the meaning of either the Securities Act or the Exchange Act, and (iii) the issuance and delivery of the Securities. The Company and the Placement Agents agree promptly to notify each other of the commencement of any proceeding against it and, in the case of the Company, against any of the Company's officers or directors in connection with the issuance and sale of the Securities.

Section 7. Termination.

(a) If (1) this Agreement shall be terminated by the Placement Agents pursuant to Section 5 hereof or (2) the sale of the Securities to Purchasers is not consummated because of any failure, refusal or inability on the part of the Company to comply with the terms or perform any agreement or obligation of this Agreement or any Purchase Agreement, other than by reason of a default by the Placement Agents, the Company will, in addition to paying the amounts described in Section 4 hereof, reimburse the Placement Agents for all of its reasonable, documented and actual out-of-pocket disbursements (including, but not limited to, the reasonable and documented fees and disbursements of its outside counsel); provided that the amounts reimbursed to the Placement Agents by the Company pursuant to Section 4 and this Section 7(a) shall not exceed $75,000 in the aggregate.

(b) If the Closing has not occurred as of 12:01 a.m., New York time, on January 1, 2018, this Agreement shall automatically terminate.

Section 8. Notices.

All statements, requests, notices and agreements hereunder shall be in writing or by facsimile or email transmission, and:

(a) if to the Placement Agents, shall be delivered or sent by mail, facsimile or email transmission to:

Raymond James & Associates, Inc.
277 Park Avenue, Suite 410
New York, New York 10172
Attention: Ed Newman
Facsimile No.: (212) 885-1808

Email: Ed.Newman@RaymondJames.com

and

Ladenburg Thalmann & Co. Inc.
277 Park Avenue, 26th Floor
New York, New York 10172
Attention: Joseph Giovanniello
Facsimile No.: (212) 409-2169
Email: JGiovanniello@ladenburg.com

with a copy (which shall not constitute notice) to:

Morrison & Foerster LLP
250 West 55th Street
New York, New York 10019
Attention: Anna Pinedo, Esq.
Facsimile No.: (212) 468-7900
Email: APinedo@mofo.com

(b) if to the Company, shall be delivered or sent by mail, facsimile or email transmission to:

Leap Therapeutics, Inc.
47 Thorndike Street, Suite B1-1
Cambridge, Massachusetts 02141
Attention: Chief Financial Officer
Facsimile No.: (617) 252-4342
Email: DOnsi@leaptx.com

with a copy (which shall not constitute notice) to:

Morgan, Lewis & Bockius LLP
One Federal Street
Boston, Massachusetts 02110
Attention: Julio E. Vega, Esq.
William S. Perkins, Esq.
Facsimile No.: (617) 341-7701
Email: Julio.Vega@morganlewis.com
William.Perkins@morganlewis.com

Any such notice shall be effective only upon receipt. Any party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose.

Section 9. Persons Entitled to Benefit of Agreement.

This Agreement shall inure to the benefit of and shall be binding upon the Placement Agents, the Company and their respective successors and assigns and the controlling persons, officers and directors referred to in Section 6 hereof. Nothing in this Agreement is intended or shall be construed to give to any other person, firm or corporation, other than the persons, firms or corporations mentioned in the preceding sentence, any legal or equitable remedy or claim under or in respect of this Agreement, or any provision

herein contained. The term "successors and assigns" as herein used shall not include any purchaser of the Securities by reason merely of such purchase.

Section 10. Governing Law.

This Agreement is to be construed in accordance with and governed by the federal law of the United States of America and the internal laws of the State of New York without giving effect to any choice of law rule that would cause the application of the laws of any jurisdiction other than the internal laws of the State of New York to the rights and duties of the parties.

Section 11. No Fiduciary Relationship.

The Company acknowledges and agrees that the Placement Agents shall act as independent contractors, and not as a fiduciaries, and any duties of the Placement Agents with respect to providing investment banking services to the Company, including the offering of the Securities contemplated hereby (including in connection with determining the terms of the Offering), shall be contractual in nature, as expressly set forth herein, and shall be owed solely to the Company. Each party hereto disclaims any intention to impose any fiduciary or similar duty on any other party hereto. Additionally, the Placement Agents have not acted as a financial advisor, nor has advised or is advising, the Company or any other person as to any legal, tax, investment, accounting or regulatory matters in any jurisdiction with respect to the transactions contemplated hereby. The Company shall consult with its own advisors concerning such matters and shall be responsible for making its own independent investigation and appraisal of the transactions contemplated hereby, and the Placement Agents shall have no responsibility or liability to the Company with respect thereto. Any review by the Placement Agents of the Company, the transactions contemplated hereby or other matters relating to such transactions have been and will be performed solely for the benefit of the Placement Agents and have not been and shall not be performed on behalf of the Company or any other person. It is understood that the Placement Agents have not and will not be rendering an opinion to the Company as to the fairness of the terms of the Offering. Notwithstanding anything in this Agreement to the contrary, the Company acknowledges that the Placement Agents may have financial interests in the success of the Offering contemplated hereby that are not limited to the Placement Fee. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against the Placement Agents with respect to any breach or alleged breach of fiduciary duty.

Section 12. Headings.

The headings of the various sections of this Agreement have been inserted for convenience of reference only and shall not be deemed to be part of this Agreement.

Section 13. Amendments and Waivers.

No supplement, modification or waiver of any term of this Agreement shall be binding unless executed in writing by the party to be bound thereby. The failure of a party to exercise any right or remedy shall not be deemed or constitute a waiver of such right or remedy in the future. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provision hereof (regardless of whether similar), nor shall any such waiver constitute a continuing waiver unless otherwise expressly provided.

Section 14. Submission to Jurisdiction.

By the execution and delivery of this Agreement, the Company submits to the non-exclusive jurisdiction of United States District Court for the Southern District of New York and of any New York State court sitting in New York City for purposes of all legal proceedings arising out of or relating to the Securities or this Agreement. Each of the parties hereto hereby irrevocably waives, to the fullest extent permitted by law, any objection that it may now or hereafter have to the laying of venue of any such proceeding brought in such a court and any claim that any such proceeding brought in such court has been brought in an inconvenient forum. In the event of any legal proceeding arising out of or relating to the Securities or this Agreement, the prevailing party in any such legal proceeding shall be entitled to recover out-of-pocket costs and expenses (including reasonable fees and disbursements of attorneys and experts) from the non-prevailing party in addition to any damage award that the non-prevailing party may be entitled to recover under applicable law.

Section 15. Counterparts.

This Agreement may be executed in counterparts, each of which shall constitute an original, but all of which, when taken together, shall constitute but one instrument, and shall become effective when one or more counterparts have been signed by each party hereto and delivered to the other parties. Signatures transmitted by facsimile or email shall be deemed original signatures.

Section 16. Entire Agreement.

This Agreement and the instruments referenced herein contain the entire understanding of the parties with respect to the matters covered herein and therein and supersedes all prior agreements of the parties (including, for the avoidance of doubt, any engagement letter previously executed by and among the Company and the Placement Agents) with respect to the matters covered herein and therein. Except as specifically set forth herein or therein, neither the Company nor the Purchaser makes any representation, warranty, covenant or undertaking with respect to such matters. Each party expressly represents and warrants that it is not relying on any oral or written representations, warranties, covenants or agreements outside of this Agreement.

[*Signature page(s) follow*]

If the foregoing is in accordance with your understanding of the agreement among the Company and the Placement Agents, kindly indicate your acceptance in the space provided for that purpose below.

Very truly yours,

LEAP THERAPEUTICS, INC., a Delaware corporation

By: /s/ Christopher Mirabelli, Ph.D.
Name: Christopher Mirabelli, Ph.D.
Title: President and Chief Executive Officer

Accepted as of the date first above written:

RAYMOND JAMES & ASSOCIATES, INC.

By: /s/ Ed Newman
Name: Ed Newman
Title: Managing Director

LADENBURG THALMANN & CO. INC.

By: /s/ David J. Strupp, Jr.
Name: David J. Strupp, Jr.
Title: Managing Director

Schedule I

Directors and Officers Executing Lock-Up Agreements

Christopher K. Mirabelli
Augustine Lawlor
Douglas E. Onsi
Dr. James Cavanaugh
Dr. Thomas Dietz
Dr. William Li
John Littlechild
Dr. Joseph Loscalzo
Nissim Mashiach

Exhibit A

Form of Purchase Agreement

Exhibit B

Pricing Information

Number of Shares of Common Stock: 2,958,094

Offering Price per Share of Common Stock: $6.085

Number of shares of Common Stock Underlying the Warrants: 2,958,094

Exercise Price of the Warrants: $6.085

Placement Fee: 2.2% of the gross proceeds from the sale of the Shares

Exhibit C

Form of Lock-Up Agreement

November [•], 2017

RAYMOND JAMES & ASSOCIATES, INC.
277 Park Avenue, Suite 410
New York, New York 10172

LADENBURG THALMANN & CO. INC.
277 Park Avenue, 26th Floor
New York, New York 10172

Re: Leap Therapeutics, Inc.

Ladies and Gentlemen:

The undersigned understands that you propose to enter into a placement agency agreement (the "*Placement Agency Agreement*") with Leap Therapeutics, Inc., a Delaware corporation (the "*Company*"), providing for the offering (the "*Offering*") by the Company of (i) shares (the "*Shares*") of its common stock, par value $0.001 (the "*Common Stock*"), and (ii) warrants to purchase Common Stock (the "*Warrants*" and, together with the Shares, the "*Securities*"). Capitalized terms used herein and not otherwise defined shall have the meanings set forth in the Placement Agency Agreement.

In consideration of the Placement Agents' agreement to participate in the Offering of the Securities, and for other good and valuable consideration receipt of which is hereby acknowledged, the undersigned hereby agrees that, without the prior written consent of each of Raymond James & Associates, Inc. and Ladenburg Thalmann & Co. Inc. (together, the "*Placement Agents*"), the undersigned will not, during the period ending 90 days after the Closing of the Offering, (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or

exchangeable for shares of Common Stock (including without limitation, Common Stock or such other securities which may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant), or publicly disclose the intention to make any offer, sale, pledge or disposition, (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of Common Stock or such other securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of shares of Common Stock or such other securities, in cash or otherwise or (3) make any demand for or exercise any right with respect to the registration of any shares of Common Stock or any security convertible into or exercisable or exchangeable for shares of Common Stock, in each case other than (A) transfers of shares of Common Stock as a bona fide gift or gifts, (B) shares of Common Stock

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sold by the undersigned pursuant to a trading plan under Rule 10b5-1 of the Securities Exchange Act of 1934, as amended (the "*Exchange Act*") in existence on the date hereof, (C) distributions of shares of Common Stock to members or stockholders of the undersigned, (D) transfers or dispositions of shares of capital stock of the Company or any securities convertible into, or exercisable or exchangeable for such capital stock to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned in transactions not involving a disposition for value, (E) transfers or dispositions of shares of capital stock of the Company or any securities convertible into, or exercisable or exchangeable for such capital stock to any corporation, partnership, limited liability company or other entity all of the beneficial ownership interests of which are held by the undersigned or the immediate family of the undersigned in a transaction not involving a disposition for value, (F) transfers or dispositions of shares of capital stock of the Company or any securities convertible into, or exercisable or exchangeable for such capital stock by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the undersigned and (G) distributions of shares of capital stock of the Company or any securities convertible into, or exercisable or exchangeable for such capital stock to partners, members or stockholders of the undersigned; provided that in the case of any transfer or distribution pursuant to clause (A), (B), (D), (E), (F) and (G), each donee or distributee shall execute and deliver to the Placement Agents a lock-up letter in the form of this paragraph. The undersigned agrees not to make any public announcement during the Lock-Up Period of any intention to undertake any of the transactions described in clauses (1), (2) or (3) above.

The restrictions described in this Lock-Up Agreement shall not apply to (i) the sale of any Securities acquired by the undersigned pursuant to any Purchase Agreement or any exercise of the Warrants, (ii) the purchase and sale of any shares of Common Stock purchased after the date of this Lock-Up Agreement in an open market transaction, and (iii) the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act. No provision of this Lock-Up Agreement shall restrict or prohibit the exercise, exchange or conversion by the undersigned of any option or warrant to acquire shares of Common Stock, or any other security convertible into or exchangeable or exercisable for shares of Common Stock; provided, further, that any shares of Common Stock and any of such other securities acquired in connection with any such exercise, exchange or conversion will be subject to the restrictions provided for in this Lock-Up Agreement.

In furtherance of the foregoing, the Company and any duly appointed transfer agent for the registration or transfer of the securities described herein are hereby authorized to decline to make any transfer of securities if such transfer would constitute a violation or breach of this Lock-Up Agreement.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Lock-Up Agreement. All authority herein conferred or agreed to be conferred and any obligations of the undersigned shall be binding upon the successors, assigns, heirs or personal representatives of the undersigned.

The undersigned understands that, if the Placement Agency Agreement does not become effective by December 31, 2017, or if the Placement Agency Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Securities to be sold thereunder, the undersigned shall be released from, all obligations under this Lock-Up Agreement. The undersigned understands that the Placement Agents are entering into the Placement Agency Agreement and participating in the Offering in reliance upon this Lock-Up Agreement.

This Lock-Up Agreement and any claim, controversy or dispute arising under or related to this Lock-Up Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflict of laws principles thereof.

Very truly yours,
[*NAME OF STOCKHOLDER*]

By: _____
Name:
Title:

VOTING AGREEMENT

THIS VOTING AGREEMENT is made as of November 14, 2017 (the "Agreement"), by and among Leap Therapeutics, Inc., a Delaware corporation (the "Company"), and each of HealthCare Ventures VIII, L.P., HealthCare Ventures IX, L.P., and HealthCare Ventures Strategic Fund, L.P. (each, a "Stockholder", and collectively, the "Stockholders"). Capitalized terms used in this Agreement without definition shall have the respective meanings ascribed to such terms in the Purchase Agreements (as defined below).

W I T N E S S E T H

WHEREAS, contemporaneously with the execution and delivery of this Agreement, the Company is (a) entering into Purchase Agreements, each with substantially similar form, terms and conditions, dated as of the date hereof (as such agreements may hereafter be amended from time to time, the "Purchase Agreements"), with certain investors (the "Buyers") that provide for, upon the terms and subject to the conditions set forth therein, the sale by the Company to the Buyers of shares of the Company's common stock, par value $0.001 (the "Common Stock"), and warrants to purchase shares of Common Stock and (b) issuing warrants to purchase shares of Common Stock, each with substantially similar form, terms and conditions, dated as of the date hereof (the "Warrants") with the Buyers; and

WHEREAS, pursuant to the Purchase Agreements and the Warrants, Section 2(c) of the Warrants shall not be applicable unless the requisite percentage approval of the stockholders of the Company has been obtained in accordance with the rules and regulations of The NASDAQ Stock Market (or any successor thereto) and therefore, the Company has agreed to call a meeting of its stockholders for the purpose of seeking approval of the Company's stockholders for the approval of anti-dilution provisions of the Warrants (the "Proposal");

WHEREAS, as of the date hereof, each Stockholder beneficially owns the number of shares of Common Stock set forth opposite such Stockholder's name on Schedule I hereto (all such shares so beneficially owned and which may hereafter be acquired by such Stockholder prior to the termination of this Agreement, whether upon the exercise of options, conversion of convertible securities, exercise of warrants or by means of purchase, dividend, distribution or otherwise, being referred to herein as the "Shares"); and

WHEREAS, in order to induce the Company and the Buyers to enter into the Purchase Agreements, each Stockholder is willing to enter into this Agreement.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants and agreements herein contained, and intending to be legally bound hereby, the Company and each Stockholder hereby agree as follows:

ARTICLE I.

TRANSFER AND VOTING OF SHARES; AND OTHER COVENANTS OF THE STOCKHOLDERS

SECTION 1.1. Voting of Shares. From the date hereof until termination of this Agreement pursuant to Section 3.1 hereof (the "Term"), at any meeting of the stockholders of the Company, however called and at any adjournment or postponement thereof, and in any action by written consent of the stockholders of the Company, in either case at or pursuant to which the Proposal is to be considered and voted on by the stockholders of the Company, each Stockholder shall (a) appear at such meeting or otherwise cause the Shares to be counted as present thereat for purposes of establishing a quorum and (b) vote (or cause to be voted) the Shares (i) in favor of the Proposal and such other matters as may be necessary or advisable to consummate the transactions contemplated by the Purchase Agreements (the "Transactions") and (ii) against the approval or adoption of any proposal made in opposition to, or in competition with, the Proposal or the Transactions, and against any other action that is intended, or could reasonably be expected, to otherwise materially impede, interfere with, delay, postpone, discourage or adversely affect the consummation of the Transactions. If each Stockholder is the beneficial owner, but not the record holder, of any of the Shares, each Stockholder agrees to cause the record holder and any nominees to vote all of such Shares in accordance with this Section 1.1, including by executing such documentation as shall be requested by the record holder or any such nominee for purposes of giving voting instructions thereto.

SECTION 1.2. Grant of Irrevocable Proxy.

(a) Each Stockholder hereby irrevocably and unconditionally (to the fullest extent permitted by law) grants to, and appoints, the Company and each of its executive officers and any of them, in their capacities as officers of the Company (the "Grantees"), as each Stockholder's proxy and attorney-in-fact (with full power of substitution and re-substitution), for and in the name, place and stead of each Stockholder, to vote the Shares, to instruct nominees or record holders to vote the Shares, or to grant a consent or approval or dissent or disapproval in respect of the Shares, in each case in accordance with Section 1.1 hereof and, in the discretion of the Grantees, with respect to any proposed adjournments or postponements of any meeting of stockholders of the Company at which any of the matters described in Section 1.1 hereof are to be considered.

(b) Each Stockholder hereby affirms that the irrevocable proxy set forth in this Section 1.2 is given in connection with the execution of the Purchase Agreements and the proposed issuance of the Shares as contemplated thereby, and that such irrevocable proxy is given to secure the performance of the duties of each Stockholder under this Agreement. Each Stockholder hereby further affirms that the irrevocable proxy is coupled with an interest and may under no circumstances be revoked, except as otherwise set forth herein. Each Stockholder hereby ratifies and confirms all that the Grantees may lawfully do or cause to be done by virtue hereof. The irrevocable proxy set forth in this Section 1.2 is executed and intended to be irrevocable in accordance with the provisions of Section 212 of the Delaware General Corporation Law. Notwithstanding this Section 1.2, the proxy granted by each Stockholder shall be revoked upon termination of this Agreement in accordance with its terms.

(c) The Grantees may not exercise this irrevocable proxy on any other matter except as provided above.

SECTION 1.3. No Inconsistent Arrangements. Except as contemplated by this Agreement, from the date hereof until the record date for the stockholders' meeting of the Company at which the Proposal is to be voted on by the stockholders of the Company, each Stockholder will not (a) directly or indirectly, sell, transfer, assign, pledge, hypothecate, tender, encumber or otherwise dispose of in any manner any of the Shares, or consent or agree to do any of the foregoing, (b) directly or indirectly, limit its right to vote in any manner any of the Shares (other than as set forth in this Agreement), including without limitation by the grant of any proxy, power of attorney or other authorization in or with respect to the Shares (other than any such proxy, power of attorney or other authorization consistent with, and for purposes of complying with, the provisions of Section 1.1 hereof), by depositing the Shares into a voting trust, or by entering into a voting agreement, or consent or agree to do any of the foregoing or (c) take any action which would have the effect of preventing or disabling each Stockholder from performing its obligations under this Agreement. Notwithstanding the foregoing, any Stockholder may sell or transfer any or all of the Shares to any Person (as defined below) in a private transaction at any time on or prior to the record date for such stockholders' meeting of the Company, provided that the transferee of such Shares executes and delivers to the Company a Voting Agreement with respect to such transferred Shares containing substantially the same terms as this Agreement. For purposes of this Section 1.3, the term "sell" or "transfer" or any derivatives thereof shall include, but not be limited to, (A) a sale, transfer or disposition of record or beneficial ownership, or both and (B) a short sale with respect to the Shares or substantially identical property, entering into or acquiring an offsetting derivative contract with respect to the Shares or substantially identical property, entering into or acquiring a futures or forward contract to deliver the Shares or substantially identical property or entering into any transaction that has the same effect as any of the foregoing.

SECTION 1.4. Stop Transfer. The Company shall issue stop-transfer instructions to the transfer agent for the Shares instructing the transfer agent not to register any transfer of Shares during the Term except in compliance with the terms of this Agreement.

SECTION 1.5. Additional Shares. Each Stockholder hereby agrees that, while this Agreement is in effect, such Stockholder shall promptly notify the Company of any new Shares acquired (whether upon the exercise of options, conversion of convertible securities, exercise of warrants or by means of purchase, dividend, distribution or otherwise) by such Stockholder after the date hereof.

SECTION 1.6. Disclosure. Each Stockholder hereby authorizes the Company to publish and disclose in any announcement or disclosure required by the United States Securities and Exchange Commission (the "SEC"), including in any proxy statement filed with the SEC in connection with any meeting of stockholders of the Company at which the Proposal is to be considered and all documents and schedules filed with the SEC in connection with the foregoing, each Stockholder's identity and ownership of the Shares and the nature of such Stockholder's commitments, arrangements and understandings under this Agreement.

ARTICLE II.

REPRESENTATIONS AND WARRANTIES OF THE STOCKHOLDERS

Each Stockholder hereby represents and warrants to the Company as of the date hereof and as of the date of any stockholders' meeting at which the Proposal is considered, including any adjournment or postponement thereof (or the date of the taking of any action by written consent with respect to the Proposal) as follows:

SECTION 2.1. Due Authorization, etc. Such Stockholder has all requisite power and authority to execute, deliver and perform this Agreement and to take the actions contemplated hereby (including the granting of the irrevocable proxy pursuant to Section 1.2 hereof), all of which have been duly authorized by all action necessary on the part of such Stockholder. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary action on the part of such Stockholder. This Agreement has been duly executed and delivered by or on behalf of such Stockholder and constitutes a legal, valid and binding obligation of such Stockholder, enforceable against such Stockholder in accordance with its terms, except as enforcement may be limited by bankruptcy, insolvency, moratorium or other similar laws and except that the availability of equitable remedies, including specific performance, is subject to the discretion of the court before which any proceeding for such remedy may be brought.

SECTION 2.2. No Violation. Neither the execution and delivery of this Agreement nor the performance of this Agreement by such Stockholder will (a) require such Stockholder to file or register with, or obtain any material permit, authorization, consent or approval of, any governmental agency, authority, administrative or regulatory body, court or other tribunal, foreign or domestic, or any other entity, or (b) violate, or cause a breach of or default under, or conflict with any contract, agreement or understanding, any statute or law, or any judgment, decree, order, regulation or rule of any governmental agency, authority, administrative or regulatory body, court or other tribunal, foreign or domestic, or any other entity or any arbitration award binding upon such Stockholder, except for such violations, breaches, defaults or conflicts which would not, individually or in the aggregate, be reasonably likely to impair or have an adverse effect on such Stockholder's ability to satisfy its obligations under this Agreement or render inaccurate any of the other representations made by such Stockholder in this Agreement. No proceedings are pending which, if adversely determined, will have an adverse effect on such Stockholder's ability to vote any of the Shares.

SECTION 2.3. Ownership of Shares. Such Stockholder has good and marketable title to, and is the sole legal and beneficial owner (determined in accordance with Rule 13d-3 under the Securities Exchange Act of 1934, as amended, the "Exchange Act") of the Shares set forth opposite its name on Schedule I hereto, in each case free and clear of all liabilities, claims, liens, options, security interests, proxies, voting trusts, voting agreements, charges, participations and encumbrances of any kind or character whatsoever, except as may be imposed by federal, state or foreign securities laws and this Agreement. Such Stockholder has not previously assigned or sold any of the Shares to any third party. On the date hereof, the Shares set forth opposite such Stockholder's name on Schedule I hereto constitute all of the Shares owned of record or beneficially by such Stockholder. Such Stockholder has sole voting power and sole power of disposition with respect to the Shares with no restrictions on its voting rights or rights of disposition pertaining thereto.

SECTION 2.4. Voting Authority. Such Stockholder has full legal power, authority and right to vote all of the Shares owned of record and/or beneficially by such Stockholder in favor of the Proposal and the approval and authorization of the Transactions without the consent or approval of, or any other action on the part of, any other Person. Without limiting the generality of the foregoing, such Stockholder has not entered into any voting agreement (other than this Agreement) with any Person with respect to any of the Shares, granted any Person any proxy (revocable or irrevocable) or power of attorney with respect to any of the Shares, deposited any of the Shares in a voting trust or entered into any arrangement or agreement with any Person limiting or affecting such Stockholder's legal power, authority or right to vote the Shares on any matter. For purpose hereof, "Person" means any individual, corporation, limited or general partnership, limited liability company, limited liability partnership, trust, association, joint venture, governmental entity or any other entity or group (as such term is defined in Section 13(d)(3) of the Exchange Act).

SECTION 2.5. Reliance by the Company. Such Stockholder understands and acknowledges that the Company is entering into the Purchase Agreements in reliance upon such Stockholder's execution and delivery of this Agreement and the representations and warranties of such Stockholder contained herein.

ARTICLE III.

MISCELLANEOUS

SECTION 3.1. Termination. This Agreement shall terminate and be of no further force and effect upon the earliest of (i) immediately following a meeting of the Company's stockholders at which the Proposal is voted upon and approved by the Company's stockholders, which meeting is duly called and held for such purpose and at which a quorum was present and acting throughout, and (ii) the termination of the Purchase Agreements at any time prior to the consummation of the Closing contemplated under the Purchase Agreements. No such termination of this Agreement shall relieve any party hereto from any liability for any breach of this Agreement prior to such termination.

SECTION 3.2. Further Assurances. From time to time at the request of the Company and without further consideration, each Stockholder will execute and deliver to the Company such documents and take such action as the Company may reasonably deem to be necessary or desirable to carry out the provisions hereof.

SECTION 3.3. No Waiver. The failure of any party hereto to exercise any right, power or remedy provided under this Agreement or otherwise available in respect hereof at law or in equity, or to insist upon compliance by any other party hereto with its obligations hereunder, or any custom or practice of the parties at variance with the terms hereof shall not constitute a waiver by such party of its right to exercise any such or other right, power or remedy or to demand such compliance.

SECTION 3.4. Specific Performance. Each Stockholder acknowledges that the Company will be irreparably harmed and that there will be no adequate remedy at law for a violation of any of the covenants or agreements of such Stockholder that are contained in this Agreement. It is

accordingly agreed that, in addition to any other remedies which may be available to the Company upon the breach by any Stockholder of such covenants and agreements, the Company will have the right without the posting of a bond or other security to obtain injunctive relief to restrain any breach or threatened breach of such covenants or agreements or otherwise to obtain specific performance of any of such covenants or agreements against such Stockholder. Accordingly, should the Company institute an action or proceeding seeking specific enforcement of the provisions hereof, each Stockholder hereby waives the claim or defense that the Company has an adequate remedy at law and hereby agrees not to assert in any such action or proceeding the claim or defense that such a remedy at law exists.

SECTION 3.5. Notice. Any notices, consents, waivers or other communications required or permitted to be given under the terms of this Agreement must be in writing and will be deemed to have been delivered: (a) upon receipt, when delivered personally; (b) upon receipt, when sent by facsimile (except notice may not be delivered to the Company via facsimile) or e-mail (provided confirmation of transmission is mechanically or electronically generated and, in the case of an email, a read receipt is received, and in each case kept on file by the sending party); or (c) upon receipt, when delivered by a nationally recognized overnight delivery service, in each case properly addressed to the party to receive the same. The addresses and facsimile numbers for such communications shall be:

(i) if to the Company, to:

Leap Therapeutics, Inc.
47 Thorndike St, Suite B1-1
Cambridge, MA 02141
Facsimile number: 617-588-1606
Email address: donsi@leaptx.com
Attn: Chief Financial Officer

with a copy to:

Morgan, Lewis & Bockius LLP
One Federal Street
Boston, MA 02110-1726
Attn: Julio E. Vega, Esq.
Fax No.: (617) 341-7701
Email: julio.vega@morganlewis.com

(ii) if to the Stockholders, as set forth in Schedule I hereto.

SECTION 3.6. Capacity. Notwithstanding anything in this Agreement to the contrary, each Stockholder makes no agreement or understanding herein in any capacity other than in such Stockholder's capacity as a record holder and beneficial owner of the Shares.

SECTION 3.7. Expenses. Each of the parties hereto will pay its own expenses incurred in connection with this Agreement.

SECTION 3.8. Headings. The headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

SECTION 3.9. Severability. If any term or other provision of this Agreement is invalid, illegal or incapable of being enforced by any rule of law or public policy, all other conditions and provisions of this Agreement shall nevertheless remain in full force and effect so long as the economic or legal substance of the transactions contemplated hereby is not affected in any manner adverse to any party. Upon such determination that any term or other provision is invalid, illegal or incapable of being enforced, the parties hereto shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in an acceptable manner to the end that obligations hereunder are fulfilled to the maximum extent possible.

SECTION 3.10. Entire Agreement. This Agreement constitutes the entire agreement and supersedes any and all other prior agreements and undertakings, both written and oral, among the parties, or any of them, with respect to the subject matter hereof.

SECTION 3.11. Successors and Assigns. Except as otherwise expressly provided herein, this Agreement shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors, administrators and permitted assigns of the parties hereto. No assignment or delegation by any party to this Agreement of any obligations of such party under this Agreement shall operate to relieve or release such party from such obligations or from any liability hereunder for failure of such obligations to be performed in accordance with their respective terms.

SECTION 3.12. Governing Law; Consent to Jurisdiction; Waiver of Jury Trial. This Agreement will be governed by and construed and enforced in accordance with the laws of the State of Delaware, without regard to its principles of conflicts of laws. Each party hereby irrevocably submits to the non-exclusive jurisdiction of the state and federal courts sitting in Delaware 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 this Agreement), and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement 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 other manner permitted by law. **EACH OF THE PARTIES HERETO WAIVES ANY RIGHT TO REQUEST A TRIAL BY JURY IN ANY LITIGATION WITH RESPECT TO THIS AGREEMENT AND REPRESENTS THAT COUNSEL HAS BEEN CONSULTED SPECIFICALLY AS TO THIS WAIVER.**

SECTION 3.13. Amendment. This Agreement may not be amended except by an instrument in writing signed on behalf of the Company and each Stockholder. If any material amendment or waiver is proposed to be made with respect to any other Voting Agreement, the Company hereby covenants and agrees that each Stockholder shall be afforded the opportunity to enter into or receive (as applicable) a comparable amendment or waiver with respect to this Agreement.

SECTION 3.14. Remedies Not Exclusive. All rights, powers and remedies provided under this Agreement or otherwise available in respect hereof at law or in equity will be cumulative and not alternative, and the exercise of any thereof by any party will not preclude the simultaneous or later exercise of any other such right, power or remedy by such party.

SECTION 3.15. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall constitute an original, but all of which, when taken together, shall constitute but one instrument, and shall become effective when one or more counterparts have been signed by each party hereto and delivered to the other parties. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) the same with the same force and effect as if such facsimile or ".pdf" signature were the original thereof.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the date first written above.

LEAP THERAPEUTICS, INC.

By: /s/ Christopher Mirabelli, Ph.D.
Name: Christopher Mirabelli, Ph.D.
Title: President and Chief Executive Officer

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the date first written above.

HEALTHCARE VENTURES VIII, L.P.

By: HealthCare Partners VIII, L.P., its general partner

By: HealthCare Partners VIII, LLC, its general partner

By: /s/ Augustine Lawlor
Name: Augustine Lawlor
Title: Managing Director

HEALTHCARE VENTURES IX, L.P.

By: HealthCare Partners IX, L.P., its general partner

By: HealthCare Partners IX, LLC, its general partner

By: /s/ Augustine Lawlor
Name: Augustine Lawlor
Title: Managing Director

HEALTHCARE VENTURES STRATEGIC FUND, L.P.

By: HealthCare Strategic Partners, LLC, its general partner

By: /s/ Augustine Lawlor
Name: Augustine Lawlor
Title: Managing Director

Signature Page to Voting Agreement

Schedule I

Name of Stockholder	Number of Shares Beneficially Owned
HealthCare Ventures VIII, L.P. c/o Leap Therapeutics, Inc. 47 Thorndike St, Suite B1-1 Cambridge, MA 02141	2,618,406
HealthCare Ventures IX, L.P. c/o Leap Therapeutics, Inc. 47 Thorndike St, Suite B1-1 Cambridge, MA 02141	2,515,607
HealthCare Ventures Strategic Fund, L.P. c/o Leap Therapeutics, Inc. 47 Thorndike St, Suite B1-1 Cambridge, MA 02141	343,889

Leap Therapeutics Announces $18 Million Private Placement Offering

CAMBRIDGE, Mass., Nov. 15, 2017 (GLOBE NEWSWIRE) — Leap Therapeutics, Inc. (Nasdaq:LPTX), a biotechnology company developing targeted and immuno-oncology therapeutics, today announced it has entered into a purchase agreement to issue and sell shares of its common stock and warrants to purchase shares of its common stock at a price of $6.085 per unit in a private placement with a select group of institutional investors and strategic partners, including HealthCare Ventures and Eli Lilly and Company, for total gross proceeds of $18.0 million.

Upon closing of the transaction, Leap will sell 2,958,094 shares of unregistered common stock. Each share of common stock will be issued with a warrant to purchase one share of Leap common stock at an exercise price of $6.085 per share, with an exercise period of seven years after the closing. The consolidated closing bid price for the common stock on the Nasdaq Capital Market on the day of pricing, November 14, 2017 was $5.96. The company expects to hold a special meeting of stockholders to approve provisions related to the warrants. In connection with such approval, Leap entered into a voting agreement with entities affiliated with HealthCare Ventures to vote all of their beneficially owned shares in favor of any approval proposed at the special meeting of stockholders.

Raymond James was the lead placement agent, and Ladenburg Thalmann acted as co-placement agent for the transaction.

The securities being sold in the private placement have not been registered under the Securities Act of 1933, as amended, or state securities laws and may not be offered or sold in the United States absent registration with the Securities and Exchange Commission (SEC) or an applicable exemption from such registration requirements. Leap Therapeutics has agreed to file a registration statement with the SEC covering the resale of the shares of common stock issued in the private placement, as well as the shares of common stock issuable upon exercise of the warrants issued in the private placement.

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

About Leap Therapeutics

Leap Therapeutics (Nasdaq:LPTX) is developing targeted and immuno-oncology therapeutics. Leap's most advanced clinical candidate, DKN-01, is a humanized monoclonal antibody targeting the Dickkopf-1 (DKK1) protein, a Wnt pathway modulator. DKN-01 is in clinical trials in patients with esophagogastric cancer and biliary tract cancer, with an emerging focus on patients with defined mutations of the Wnt pathway and in combinations with immune checkpoint inhibitors. Leap's second clinical candidate, TRX518, is a novel, humanized GITR agonist monoclonal antibody designed to enhance the immune system's anti-tumor response that is in two monotherapy studies. For more information about Leap Therapeutics, visit http://www.leaptx.com or our public filings with the SEC that are available via EDGAR at http://www.sec.gov or via http://www.investors.leaptx.com/.

FORWARD LOOKING STATEMENTS

This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995, which involve risks and uncertainties. These statements include statements relating to Leap's expectations with respect to the development and advancement of DKN-01, TRX518, and other programs, including the initiation, timing and design of future studies, enrollment in future studies, business development, and other future expectations, plans and prospects. Leap has attempted to identify forward looking statements by such terminology as "believes," "estimates," "anticipates," "expects," "plans," "projects," "intends," "may," "could," "might," "will," "should," or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Although Leap believes that the expectations reflected in such forward-looking statements are reasonable as of the date made, forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from our expectations. These risks and uncertainties include, but are not limited to: the accuracy of our estimates regarding expenses, future revenues, capital requirements and needs for financing; the ability to complete a financing or form business development relationships to fund our expenses; the outcome, cost, and timing of our product development activities and clinical trials; the uncertain clinical development process, including the risk that clinical trials may not have an effective design or generate positive results; our ability to obtain and maintain regulatory approval of our drug product candidates; our plans to research, develop, and commercialize our drug product candidates; our ability to achieve market acceptance of our drug product candidates; unanticipated costs or delays in research, development, and commercialization efforts; the applicability of clinical study results to actual outcomes; the size and growth potential of the markets for our drug product candidates; our ability to continue obtaining and maintaining intellectual property protection for our drug product candidates; and other risks. Detailed information regarding factors that may cause actual results to differ materially will be included in Leap Therapeutics' periodic filings with the Securities and Exchange Commission (the "SEC"), including Leap Therapeutics' Form 10-K that Leap filed with the SEC on March 31, 2017. These statements are only predictions and involve known and unknown risks, uncertainties, and other factors. Any forward looking statements contained in this release speak only as of its date. We undertake no obligation to update any forward-looking statements contained in this release to reflect events or circumstances occurring after its date or to reflect the occurrence of unanticipated events.

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