

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

**FORM 8-K**

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

Date of Report (Date of earliest event reported): January 6, 2011

**ADVENTRX Pharmaceuticals, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation)

**001-32157**  
(Commission File Number)

**84-1318182**  
(IRS Employer Identification No.)

**12390 El Camino Real, Suite 150**  
**San Diego, CA 92130**  
(Address of principal executive offices and zip code)

**Not applicable**  
(Former name or former address if changed since last report)

Registrant's telephone number, including area code: **(858) 552-0866**

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

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

On January 5, 2011, ADVENTRX Pharmaceuticals, Inc. (the "Company") entered into an engagement letter agreement with Rodman & Renshaw, LLC (the "Placement Agent") pursuant to which the Placement Agent agreed to serve as exclusive placement agent for the Company on a reasonable best efforts basis in connection with a proposed offering by the Company of its securities.

On January 6, 2011 before 4:00 p.m. (EST), the Company entered into a securities purchase agreement with certain investors, pursuant to which the Company agreed to sell an aggregate of 8,184,556 shares of its common stock and warrants to purchase up to an aggregate of 4,092,278 shares of its common stock ("warrants"). The common stock and the warrants were offered in units, with each unit consisting of one share of common stock, a series A warrant ("series A warrants") to purchase up to 0.25 shares of common stock and a series B warrant ("series B warrants") to purchase up to 0.25 shares of common stock. Each unit will be sold at a negotiated price of \$2.75.

Subject to certain ownership limitations, the series A warrants will be exercisable at any time after their date of issuance and on or before the fifth trading day after the one-year anniversary of the date on which they initially become exercisable at an exercise price of \$2.75 per share of common stock. Subject to certain ownership limitations, the series B warrants will be exercisable at any time after their date of issuance and on or before the five-year anniversary of the date on which they initially become exercisable at an exercise price of \$2.75 per share of common stock. The closing price of the Company's common stock on January 5, 2011 was \$2.67. The exercise price of the warrants and, in some cases, the number of shares issuable upon exercise, are subject to adjustment in the case of stock splits, stock dividends, combinations of shares and similar recapitalization transactions.

The securities purchase agreement includes certain agreements and covenants for the benefit of the investors, including restrictions on the Company's ability to issue additional equity securities for a period of 15 days after January 11, 2011 and to undertake a reverse or forward stock split of its common stock for a period of 1 year after January 11, 2011, and a requirement to use its commercially reasonable efforts to maintain the listing of its common stock on one or more specified United States securities exchanges.

The common stock, the warrants and the shares of common stock underlying the warrants are being offered and will be issued and sold pursuant to the Company's effective shelf registration statement on Form S-3 (File No. 333-165691) and the related prospectus included therein and the prospectus supplements, dated January 6, 2011 and filed with the Securities and Exchange Commission on January 6, 2011 pursuant to Rule 424(b) under the Securities Act of 1933, as amended. The net proceeds to the Company from the offering, after deducting the placement agent's fees and the Company's estimated offering expenses, and excluding the proceeds, if any, from the exercise of the warrants issued in the offering, are expected to be approximately \$21.0 million. The transaction is expected to close on January 11, 2011, subject to satisfaction of customary closing conditions.

A copy of the opinion of counsel to the Company relating to the legality of the issuance and sale of the shares of common stock and warrants comprising the units and shares of common stock issuable upon exercise of the warrants is attached as Exhibit 5.1 hereto.

Pursuant to the terms of an engagement letter agreement with the Placement Agent, assuming the sale of all of the units in the offering, the Company will pay the Placement Agent a fee equal to approximately \$1,462,989. This amount represents 6.5% of the gross proceeds from the sale of the units. In addition, the Company will issue to the Placement Agent warrants to purchase up to that number of shares of common stock equal to 5.0% of the number of shares of common stock underlying units sold in the offering. Assuming the sale of all of the units in the offering, the compensation warrants to the placement agent will be exercisable for up to 409,228 shares of the Company's common stock at an exercise price of \$3.44 per share. The other terms of the Placement Agent's warrants will be substantially the same as the terms of the warrants issued to the investors in the offering, except that the exercise period will be for five years from April 1, 2010, and they will include certain restrictions on transfer in accordance with FINRA regulations.

The foregoing description of the terms of the securities purchase agreement, the warrants and the engagement letter agreement are subject to, and qualified in their entirety by, such documents attached hereto as Exhibits 4.1, 4.2 and 10.1, respectively, and incorporated herein by reference. A copy of the press release announcing the registered direct public offering is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

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**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits.

The list of exhibits called for by this Item is incorporated by reference to the Exhibit Index filed with this report.

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**SIGNATURE**

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

**ADVENTRX Pharmaceuticals, Inc.**

Dated: January 7, 2011

By: /s/ Patrick L. Keran

Name: Patrick L. Keran

Title: President and Chief Operating Officer

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## Exhibit Index

<u>Exhibit No.</u>	<u>Description</u>
4.1	Form of Securities Purchase Agreement, dated January 6, 2011, by and between ADVENTRX Pharmaceuticals, Inc. and the purchaser(s) listed on the signature pages thereto
4.2	Form of [Series A/B] Common Stock Purchase Warrant
5.1	Opinion of DLA Piper LLP (US)
10.1	Engagement Letter Agreement, dated January 5, 2011, by and between ADVENTRX Pharmaceuticals, Inc. and Rodman & Renshaw, LLC
23.1	Consent of DLA Piper LLP (US) (included in Exhibit 5.1)
99.1	Press Release, dated January 7, 2011

## SECURITIES PURCHASE AGREEMENT

This Securities Purchase Agreement (this "Agreement") is dated as of January 6, 2011, between ADVENTRX Pharmaceuticals, Inc., a Delaware corporation (the "Company"), and each purchaser identified on the signature pages hereto (each, including its successors and assigns, a "Purchaser" and collectively the "Purchasers").

WHEREAS, subject to the terms and conditions set forth in this Agreement and pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "Securities Act"), the Company desires to issue and sell to each Purchaser, and each Purchaser, severally and not jointly, desires to purchase from the Company, securities of the Company as more fully described in this Agreement.

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants contained in this Agreement, and for other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, the Company and each Purchaser agree as follows:

**ARTICLE I.**  
DEFINITIONS

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

"Action" shall have the meaning ascribed to such term in Section 3.1(j).

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

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

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

"Closing" means the closing of the purchase and sale of the Securities pursuant to Section 2.1.

"Closing Date" means the Trading Day on which all of the Transaction Documents have been executed and delivered by the applicable parties thereto, and all conditions precedent to (i) each Purchaser's obligations to pay the Subscription Amount and (ii) the Company's obligations to deliver the Securities, in each case, have been satisfied or waived, but in no event later than the third Trading Day following the date hereof.

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

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

“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.

“Company Counsel” means DLA Piper LLP (US), with offices located at 4365 Executive Drive, Suite 1100, San Diego, CA 92121.

“Disclosure Schedules” means the Disclosure Schedules of the Company delivered concurrently herewith.

“Escrow Agent” means Signature Bank, a New York State chartered bank, with offices at 261 Madison Avenue, New York, New York 10016.

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

“Exempt Issuance” means the issuance of (a) shares of Common Stock, options or other equity awards to employees, officers, directors or consultants of the Company pursuant to any equity incentive plan duly adopted for such purpose, by a majority of the non-employee members of the Board of Directors or a majority of the members of a committee of non-employee directors established for such purpose, (b) securities upon the exercise or exchange of or conversion of any Securities issued hereunder and/or other securities exercisable or exchangeable for or convertible into shares of Common Stock issued and outstanding on the date of this Agreement, provided that such securities have not been amended since the date of this Agreement to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities, and (c) securities issued pursuant to acquisitions or strategic transactions approved by a majority of the disinterested directors of the Company, provided that any such issuance shall only be to a Person (or to the equityholders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities.

“FDA” shall have the meaning ascribed to such term in Section 3.1(z).

“FDCA” shall have the meaning ascribed to such term in Section 3.1(z).

“GAAP” shall have the meaning ascribed to such term in Section 3.1(h).

“Liens” means a lien, charge, pledge, security interest, encumbrance, right of first refusal, preemptive right or other restriction other than restrictions imposed by securities laws.

“Material Adverse Effect” means: (a) a material adverse effect on the Company’s ability to perform in any material respect its obligations under any Transaction Document, or (b) a material adverse change in the results of operations, assets, business or financial condition of the Company and its Subsidiaries, taken as a whole, from that set forth or incorporated by reference in the Prospectus and Prospectus Supplement; provided, however, that none of the following, in and of itself or themselves, shall constitute a Material Adverse Effect: (i) changes in the economy or financial markets generally in the United States or changes that are the result of acts of war or terrorism; (ii) changes that are the result of factors generally affecting the banking industry in which the Company and its Subsidiaries operate; and (iii) a decline in the price of the Company’s Common Stock on the Trading Market, provided that the exception in this clause (iii) shall not prevent or otherwise affect a determination that any change, effect, circumstance or development underlying such decline has resulted in, or contributed to, a Material Adverse Effect.

“Material Permits” shall have the meaning ascribed to such term in Section 3.1(m).

“Per Share Purchase Price” means \$2.75, subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Common Stock that occur after the date of this Agreement.

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

“Pharmaceutical Product” shall have the meaning ascribed to such term in Section 3.1(z).

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

“Prospectus” means the base prospectus filed with the Registration Statement.

“Prospectus Supplement” means the supplement to the Prospectus complying with Rule 424(b) of the Securities Act that is filed with the Commission and delivered by the Company to each Purchaser before or at the Closing.

“Purchaser Party” shall have the meaning ascribed to such term in Section 4.8.

“Registration Statement” means the effective registration statement on Form S-3 with the Commission file No. 333-165691 which registers the sale of the Shares, the Warrants and the Warrant Shares to the Purchasers.



“Required Approvals” shall have the meaning ascribed to such term in Section 3.1(e).

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

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

“SEC Reports” shall have the meaning ascribed to such term in Section 3.1(h).

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

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

“Series A Warrants” means, collectively, the Series A Common Stock purchase warrants delivered to the Purchasers at the Closing in accordance with Section 2.2(a) hereof, which shall be exercisable commencing on the Closing Date and have a term of exercise equal to one year and 5 Trading Days from the Closing Date, in the form of Exhibit A attached hereto.

“Series B Warrants” means, collectively, the Series B Common Stock purchase warrants delivered to the Purchasers at the Closing in accordance with Section 2.2(a) hereof, which shall be exercisable commencing on the Closing Date and have a term of exercise equal to 5 years from the Closing Date, in the form of Exhibit A attached hereto.

“Shares” means the shares of Common Stock issued or issuable to each Purchaser pursuant to this Agreement.

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

“Subscription Amount” means, as to each Purchaser, the aggregate amount to be paid for Shares and Warrants purchased hereunder as specified below such Purchaser’s name on the signature page of this Agreement and next to the heading “Subscription Amount,” in United States dollars and in immediately available funds.

“Subsidiary” means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof but before the Closing Date.

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

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

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

“Transfer Agent” means American Stock Transfer & Trust Company LLC, the current transfer agent of the Company, with a mailing address of 6201 15th Avenue, 2nd Floor, Brooklyn, New York 11219 and a facsimile number of (718) 921-8310, and any successor transfer agent of the Company.

“Variable Rate Transaction” means a transaction in which the Company (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive additional shares of Common Stock either (A) at a conversion price, exercise price or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for the shares of Common Stock at any time after the initial issuance of such debt or equity securities, or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for the Common Stock or (ii) enters into any agreement, including, but not limited to, an equity line of credit, whereby the Company may sell securities at a future determined price. Any Purchaser shall be entitled to obtain injunctive relief against the Company to preclude any such issuance, which remedy shall be in addition to any right to collect damages.

“Warrants” means the Series A Warrants and the Series B Warrants.

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

“WS” means Weinstein Smith LLP with offices located at 420 Lexington Avenue, Suite 2620, New York, New York 10170-0002.

## **ARTICLE II. PURCHASE AND SALE**

2.1 Closing. Upon the terms and subject to the conditions set forth herein, the Company agrees to sell, and the Purchasers, severally and not jointly, agree to purchase, up to an aggregate of \$22,507,529 of Shares and Warrants. At the Closing, each Purchaser shall deliver to the Company, via wire transfer or a certified check, immediately available funds equal to such

Purchaser's Subscription Amount as set forth on the signature page hereto executed by such Purchaser and the Company shall deliver to each Purchaser its respective Shares and a Warrant, as determined pursuant to Section 2.2(a), and the Company and each Purchaser shall deliver the other items set forth in Section 2.2 deliverable at the Closing. Upon satisfaction of the covenants and conditions set forth in Sections 2.2 and 2.3, the Closing shall occur at the offices of WS or such other location as the parties shall mutually agree.

2.2 Deliveries.

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

(i) this Agreement duly executed by the Company;

(ii) a legal opinion of Company Counsel, substantially in the form to be mutually agreed upon by the parties hereto;

(iii) a copy of the irrevocable instructions to the Transfer Agent instructing the Transfer Agent to deliver via The Depository Trust Company Deposit or Withdrawal at Custodian system ("DWAC") that number of Shares equal to such Purchaser's Subscription Amount divided by the Per Share Purchase Price;

(iv) a Series A Warrant registered in the name of such Purchaser to purchase up to a number of shares of Common Stock equal to 25% of such Purchaser's Shares, with an exercise price equal to \$2.75, subject to adjustment therein (such Warrant certificate may be delivered within three Trading Days of the Closing Date);

(v) a Series B Warrant registered in the name of such Purchaser to purchase up to a number of shares of Common Stock equal to 25% of such Purchaser's Shares, with an exercise price equal to \$2.75, subject to adjustment therein (such Warrant certificate may be delivered within three Trading Days of the Closing Date); and

(vi) the Prospectus and Prospectus Supplement (which may be delivered in accordance with Rule 172 under the Securities Act).

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

(i) this Agreement duly executed by such Purchaser; and

(ii) such Purchaser's Subscription Amount by wire transfer to the account specified in writing by the Company.

2.3 Closing Conditions.

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

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

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

(iii) the delivery by each Purchaser of the items set forth in Section 2.2(b) of this Agreement.

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

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

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

(iii) the delivery by the Company of the items set forth in Section 2.2(a) of this Agreement.

**ARTICLE III.**  
**REPRESENTATIONS AND WARRANTIES**

3.1 Representations and Warranties of the Company. Except as set forth (or incorporated by reference) in the Registration Statement, the Prospectus, the Prospectus Supplement or the Disclosure Schedules, which disclosures in the Registration Statement, the Prospectus, the Prospectus Supplement and Disclosure Schedules shall be deemed a part hereof and shall qualify any representation or otherwise made herein, the Company hereby makes the following representations and warranties to each Purchaser:

(a) Subsidiaries. All of the direct and indirect subsidiaries of the Company are set forth in the SEC Reports. The Company owns, directly or indirectly, all of the capital stock or other equity interests of each Subsidiary free and clear of any Liens, and all of the issued and outstanding shares of capital stock of each Subsidiary are validly issued and are fully paid, non-assessable and free of preemptive and similar rights to subscribe for or purchase securities. If the Company has no subsidiaries, all other references to the Subsidiaries or any of them in the Transaction Documents shall be disregarded.

(b) Organization and Qualification. The Company and each of the Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any Subsidiary is in violation nor default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents. Each of the Company and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not reasonably be expected to result in a Material Adverse Effect and no Proceeding has been instituted or, to the knowledge of the Company, threatened in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

(c) Authorization; Enforcement. The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and each of the other Transaction Documents and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of this Agreement and each of the other Transaction Documents by the Company and the consummation by it of the transactions contemplated hereby and thereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company, the Board of Directors or the Company's stockholders in connection herewith or therewith other than in connection with the Required Approvals. This Agreement and each other Transaction Document to which it is a party has been (or upon delivery will have been) duly executed by the Company and, when delivered in accordance with the terms hereof and thereof, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except: (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

(d) No Conflicts. The execution, delivery and performance by the Company of this Agreement and the other Transaction Documents to which it is a party, the issuance and sale of the Securities and the consummation by it of the transactions contemplated hereby and thereby do not and will not: (i) conflict with or violate any provision of the Company's or any Subsidiary's certificate or articles of incorporation, bylaws or other organizational or charter documents, (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien upon any of the properties or assets of the Company or any Subsidiary, or give to others any rights of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a Company or Subsidiary debt or otherwise) or other understanding to which the Company or any Subsidiary is a

party or by which any property or asset of the Company or any Subsidiary is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company or a Subsidiary is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company or a Subsidiary is bound or affected; except in the case of each of clauses (ii) and (iii), such as could not reasonably be expected to result in a Material Adverse Effect.

(e) Filings, Consents and Approvals. The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person in connection with the execution, delivery and performance by the Company of the Transaction Documents, other than: (i) the filings required pursuant to Section 4.2 of this Agreement, (ii) the filing with the Commission of the Prospectus Supplement, (iii) the filing of application(s) to and approval by the NYSE AMEX for the listing of the Shares and Warrant Shares for trading thereon in the time and manner required thereby, (iv) an approval or waiver under that certain Rights Agreement, dated July 27, 2005, as amended ("Rights Agreement"), and (v) such filings as are required to be made under applicable state securities laws (collectively, the "Required Approvals").

(f) Issuance of the Securities; Registration. The Shares and the Warrants are duly authorized and, when issued and paid for in accordance with the applicable Transaction Documents, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Warrant Shares, when issued in accordance with the terms of the Warrants, will be validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Company has reserved from its duly authorized capital stock the maximum number of shares of Common Stock issuable pursuant to this Agreement and the Warrants. The Registration Statement was declared effective under the Securities Act on April 1, 2010 and no stop order preventing or suspending the effectiveness of the Registration Statement or suspending or preventing the use of the Prospectus has been issued by the Commission and no proceedings for that purpose have been instituted or, to the knowledge of the Company, are threatened by the Commission. The Company, if required by the rules and regulations of the Commission, proposes to file the Prospectus Supplement, with the Commission pursuant to Rule 424(b). At the time the Registration Statement and any amendments thereto became effective, at the date of this Agreement and at the Closing Date, the Registration Statement and any amendments thereto conformed and will conform in all material respects to the requirements of the Securities Act and did not and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading; and the Prospectus and any amendments or supplements thereto, at time the Prospectus or any amendment or supplement thereto was issued and at the Closing Date, conformed and will conform in all material respects to the requirements of the Securities Act and did not and will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading.

(g) Capitalization. The capitalization of the Company is as set forth in the Prospectus and the Prospectus Supplement. The Company has not issued any capital stock since its most recently filed periodic report under the Exchange Act, other than pursuant to the exercise of employee stock options under the Company's equity incentive plans, the issuance of shares of Common Stock to employees pursuant to the Company's employee stock purchase plans and pursuant to the conversion and/or exercise of Common Stock Equivalents outstanding as of the date of the most recently filed periodic report under the Exchange Act. Except as set forth in the Rights Agreement, no Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. Except (i) as a result of the purchase and sale of the Securities, (ii) pursuant to the Company's equity incentive plans and (iii) pursuant to agreements or instruments, including the Rights Agreement, filed as exhibits to SEC Reports incorporated by reference into the Prospectus Supplement, as a result of the purchase and sale of the Securities, there are no outstanding options, warrants, scrip rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock, or contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to issue additional shares of Common Stock or Common Stock Equivalents. The issuance and sale of the Securities will not obligate the Company to issue shares of Common Stock or other securities to any Person (other than the Purchasers) and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under any of such securities. All of the outstanding shares of capital stock of the Company are duly authorized and validly issued, fully paid and nonassessable, have been issued in compliance with all federal and state securities laws, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. Except for the Required Approvals, no further approval or authorization of any stockholder, the Board of Directors or others is required for the issuance and sale of the Securities. Other than the Rights Agreement, there are no stockholders agreements, voting agreements or other similar agreements with respect to the Company's capital stock to which the Company is a party or, to the knowledge of the Company, between or among any of the Company's stockholders.

(h) SEC Reports; Financial Statements. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the two years preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, together with the Registration Statement, the Prospectus and the Prospectus Supplement, being collectively referred to herein as the "SEC Reports") on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated

therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The 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 or as amended or corrected in a subsequent SEC Report. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved (“GAAP”), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated Subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments.

(i) Material Changes; Undisclosed Events, Liabilities or Developments. Since the date of the latest audited financial statements included within the SEC Reports, except as specifically disclosed in a subsequent SEC Report filed prior to the date hereof, (i) there has been no event, occurrence or development that has had or that could reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not materially altered its method of accounting, (iii) except in connection with the Company’s 5% Series B Convertible Preferred Stock, 5% Series C Convertible Preferred Stock, 4.25660% Series D Convertible Preferred Stock, 3.73344597664961% Series E Convertible Preferred Stock, and 2.19446320054018% Series F Convertible Preferred Stock, the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock and (iv) the Company has not issued any equity securities to any officer, director or Affiliate, except pursuant to existing Company equity incentive plans.

(j) Litigation. There is no action, suit, inquiry, notice of violation, proceeding or investigation pending or, to the knowledge of the Company, threatened against or affecting the Company, any Subsidiary or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an “Action”) which (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Securities or (ii) could, if there were an unfavorable decision, reasonably be expected to result in a Material Adverse Effect.

(k) Labor Relations. No material labor dispute exists or, to the actual knowledge of the Company, is imminent with respect to any of the employees of the Company, which could reasonably be expected to result in a Material Adverse Effect.

(l) Compliance. Neither the Company nor any Subsidiary: (i) is in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company or any Subsidiary under), nor has the Company or any Subsidiary received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or



any other agreement or instrument to which it is a party or by which it or any of its properties is bound (whether or not such default or violation has been waived), (ii) is in violation of any judgment, decree or order of any court, arbitrator or other governmental authority or (iii) is or has been in violation of any statute, rule, ordinance or regulation of any governmental authority, including without limitation all foreign, federal, state and local laws applicable to its business and all such laws that affect the environment, except in each case as could not reasonably be expected to result in a Material Adverse Effect.

(m) Regulatory Permits. The Company and the Subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses as described in the SEC Reports, except where the failure to possess such permits could not reasonably be expected to result in a Material Adverse Effect (“Material Permits”), and neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any Material Permit. For clarity, the Company has not received the approval of any regulatory agency to market or sell any of its product candidates.

(n) Sarbanes-Oxley. The Company is in compliance in all material respects with all provisions of the Sarbanes-Oxley Act of 2002 which are applicable to it as of the date hereof and the Closing Date.

(o) Certain Fees. Except as set forth in the Prospectus Supplement, no brokerage or finder’s fees or commissions are or will be payable by the Company to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. The Purchasers shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section that may be due in connection with the transactions contemplated by the Transaction Documents.

(p) Trading Market Rules. The issuance and sale of the Securities hereunder does not contravene the rules and regulations of the Trading Market.

(q) Investment Company. The Company is not, and immediately after receipt of payment for the Securities, will not be, an “investment company” within the meaning of the Investment Company Act of 1940, as amended.

(r) Registration Rights. No Person has any right to cause the Company or any Subsidiary to effect the registration under the Securities Act of any securities of the Company or any Subsidiary.

(s) Listing and Maintenance Requirements. The Common Stock is registered pursuant to Section 12(b) or 12(g) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such

registration. The Company has not, in the 12 months preceding the date hereof, received notice from any Trading Market on which the Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market.

(t) Application of Takeover Protections. The Company and the Board of Directors have taken all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Company's certificate of incorporation (or similar charter documents) or the laws of its state of incorporation that is or could become applicable to the Purchasers as a result of the Purchasers and the Company fulfilling their obligations or exercising their rights under the Transaction Documents, including without limitation as a result of the Company's issuance of the Securities and the Purchasers' ownership of the Securities.

(u) Disclosure. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, the Company confirms that neither it nor any other Person acting on its behalf has provided any of the Purchasers or their agents or counsel with any information that it believes constitutes or might constitute material, non-public information which is not otherwise disclosed in the Prospectus Supplement. The Company understands and confirms that the Purchasers will rely on the foregoing representation in effecting transactions in securities of the Company.

(v) No Integrated Offering. Assuming the accuracy of the Purchasers' representations and warranties set forth in Section 3.2, neither the Company, nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Securities to be integrated with prior offerings by the Company for purposes of any applicable shareholder approval provisions of any Trading Market on which any of the securities of the Company are listed or designated.

(w) Acknowledgment Regarding Purchasers' Purchase of Securities. The Company acknowledges and agrees that each of the Purchasers is acting solely in the capacity of an arm's length purchaser with respect to the Transaction Documents and the transactions contemplated thereby. The Company further acknowledges that no Purchaser is acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to the Transaction Documents and the transactions contemplated thereby and any advice given by any Purchaser or any of their respective representatives or agents in connection with the Transaction Documents and the transactions contemplated thereby is merely incidental to the Purchasers' purchase of the Securities. The Company further represents to each Purchaser that the Company's decision to enter into this Agreement and the other Transaction Documents has been based solely on the independent evaluation of the transactions contemplated hereby by the Company and its representatives.

(x) Acknowledgement Regarding Purchaser's Trading Activity. Anything in this Agreement or elsewhere herein to the contrary notwithstanding (except for Sections 3.2(e) and 4.10 hereof), it is understood and acknowledged by the Company that: (i) none of the Purchasers has been asked by the Company to agree, nor has any Purchaser agreed, to desist from purchasing or selling, long and/or short, securities of the Company, or "derivative" securities based on securities issued by the Company or to hold the Securities for any specified term; (ii) past or future open market or other transactions by any Purchaser, specifically including, without limitation, Short Sales or "derivative" transactions, before or after the closing of this or future private placement transactions, may negatively impact the market price of the Company's publicly-traded securities; (iii) any Purchaser, and counter-parties in "derivative" transactions to which any such Purchaser is a party, directly or indirectly, may presently have a "short" position in the Common Stock, and (iv) each Purchaser shall not be deemed to have any affiliation with or control over any arm's length counter-party in any "derivative" transaction. The Company further understands and acknowledges that (y) one or more Purchasers may engage in hedging activities at various times during the period that the Securities are outstanding, including, without limitation, during the periods that the value of the Warrant Shares deliverable with respect to Securities are being determined, and (z) such hedging activities (if any) could reduce the value of the existing stockholders' equity interests in the Company at and after the time that the hedging activities are being conducted. The Company acknowledges that such aforementioned hedging activities do not constitute a breach of any of the Transaction Documents.

(y) Regulation M Compliance. The Company has not, and to its knowledge no one acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Securities, (ii) sold, bid for, purchased, or paid any compensation for soliciting purchases of, any of the Securities, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company, other than, in the case of clauses (ii) and (iii), compensation paid to the Company's placement agent in connection with the placement of the Securities.

(z) FDA. As to each product subject to the jurisdiction of the U.S. Food and Drug Administration ("FDA") under the Federal Food, Drug and Cosmetic Act, as amended, and the regulations thereunder ("FDCA") that is manufactured, packaged, labeled, tested, distributed, sold, and/or marketed by the Company or any of its Subsidiaries (each such product, a "Pharmaceutical Product"), such Pharmaceutical Product is being manufactured, packaged, labeled, tested, distributed, sold and/or marketed by the Company in compliance with all applicable requirements under FDCA and similar laws, rules and regulations relating to registration, investigational use, premarket clearance, licensure, or application approval, good manufacturing practices, good laboratory practices, good clinical practices, product listing, quotas, labeling, advertising, record keeping and filing of reports, except where the failure to be in compliance would not have a Material Adverse Effect. There is no pending, completed or, to the Company's knowledge, threatened, action (including any lawsuit, arbitration, or legal or administrative or regulatory proceeding, charge, complaint, or investigation)

against the Company or any of its Subsidiaries, and none of the Company or any of its Subsidiaries has received any notice, warning letter or other communication from the FDA or any other governmental entity, which (i) contests the premarket clearance, licensure, registration, or approval of, the uses of, the distribution of, the manufacturing or packaging of, the testing of, the sale of, or the labeling and promotion of any Pharmaceutical Product, (ii) withdraws its approval of, requests the recall, suspension, or seizure of, or withdraws or orders the withdrawal of advertising or sales promotional materials relating to, any Pharmaceutical Product, (iii) imposes a clinical hold on any clinical investigation by the Company or any of its Subsidiaries, (iv) enjoins production at any facility of the Company or any of its Subsidiaries, (v) enters or proposes to enter into a consent decree of permanent injunction with the Company or any of its Subsidiaries, or (vi) otherwise alleges any violation of any laws, rules or regulations by the Company or any of its Subsidiaries, and which, either individually or in the aggregate, would have a Material Adverse Effect. The properties, business and operations of the Company have been and are being conducted in all material respects in accordance with all applicable laws, rules and regulations of the FDA. The Company has not been informed by the FDA that the FDA will prohibit the marketing, sale, license or use in the United States of any product proposed to be developed, produced or marketed by the Company nor has the FDA expressed any concern as to approving or clearing for marketing any product being developed or proposed to be developed by the Company.

(aa) Stock Option Plans. To the knowledge of the Company, each stock option granted by the Company under the Company's equity incentive plan was granted (i) in accordance with the terms of the Company's stock option plan and (ii) with an exercise price at least equal to the fair market value of the Common Stock on the date such stock option would be considered granted under GAAP and applicable law. To the knowledge of the Company, no stock option granted under the Company's stock option plan has been backdated. The Company has not knowingly granted, and there is no and has been no Company policy or practice to knowingly grant, stock options prior to, or otherwise knowingly coordinate the grant of stock options with, the release or other public announcement of material information regarding the Company or its Subsidiaries or their financial results or prospects.

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

(a) Organization; Authority. Such Purchaser is either an individual or an entity duly incorporated or formed, validly existing and in good standing under the laws of the jurisdiction of its incorporation or formation with full right, corporate, partnership, limited liability company or similar power and authority to enter into and to consummate the transactions contemplated by this Agreement and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of this Agreement and performance by such Purchaser of the transactions contemplated by this Agreement have been duly authorized by all necessary corporate, partnership, limited liability company or similar action, as applicable, on the part of such Purchaser. Each Transaction Document to which it is a party has been duly executed by such Purchaser, and when delivered by such Purchaser

in accordance with the terms hereof, will constitute the valid and legally binding obligation of such Purchaser, enforceable against it in accordance with its terms, except: (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

(b) No Conflicts. The execution, delivery and performance by such Purchaser of this Agreement and the consummation by such Purchaser of the transactions contemplated hereby do not and will not (i) conflict with or violate any provision of such Purchaser's certificate or articles of incorporation, bylaws, or other organizational or charter documents, or (ii) conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which such Purchaser is subject (including federal and state securities laws and regulations), or by which any property or asset of such Purchaser is bound or affected.

(c) Purchaser Status. At the time such Purchaser was offered the Securities, it was, and as of the date hereof it is, and on each date on which it exercises any Warrants, it will be either: (i) an "accredited investor" as defined in Rule 501(a)(1), (a)(2), (a)(3), (a)(7) or (a)(8) under the Securities Act or (ii) a "qualified institutional buyer" as defined in Rule 144A(a) under the Securities Act. Such Purchaser is not required to be registered as a broker-dealer under Section 15 of the Exchange Act.

(d) Experience of Such Purchaser. Such Purchaser acknowledges and understands that (i) its investment in the Securities involves a high degree of risk and (ii) nothing in the Transaction Documents or SEC Reports constitutes legal, tax or investment advice. Such Purchaser, either alone or together with its representatives, has such knowledge, sophistication and experience in business and financial matters so as to be capable of evaluating the merits and risks of the prospective investment in the Securities, and has so evaluated the merits and risks of such investment. Such Purchaser is able to bear the economic risk of an investment in the Securities and, at the present time, is able to afford a complete loss of such investment.

(e) Certain Transactions and Confidentiality. Other than consummating the transactions contemplated hereunder, such Purchaser has not directly or indirectly, nor has any Person acting on behalf of or pursuant to any understanding with such Purchaser, executed any purchases or sales, including Short Sales, of the securities of the Company during the period commencing as of the time that such Purchaser first received information (written or oral) from the Company or any other Person representing the Company setting forth the proposed terms of the transactions contemplated hereunder and ending immediately prior to the execution hereof. Notwithstanding the foregoing, in the case of a Purchaser that is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Purchaser's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Purchaser's assets, the representation set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment

decision to purchase the Securities covered by this Agreement. Other than to other Persons party to this Agreement, such Purchaser has maintained the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction). Notwithstanding the foregoing, for avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, with respect to the identification of the availability of, or securing of, available shares to borrow in order to effect Short Sales or similar transactions in the future.

The Company acknowledges and agrees that the representations contained in Section 3.2 shall not modify, amend or affect such Purchaser's right to rely on the Company's representations and warranties contained in this Agreement or any representations and warranties contained in any other Transaction Document or any other document or instrument executed and/or delivered in connection with this Agreement or the consummation of the transaction contemplated hereby.

**ARTICLE IV.**  
**OTHER AGREEMENTS OF THE PARTIES**

4.1 Warrant Shares. If all or any portion of a Warrant is exercised at a time when there is an effective registration statement to cover the issuance or resale of the Warrant Shares or if the Warrant is exercised via cashless exercise more than six months after the date of issuance of the Warrant (or one year in the event there is not adequate current public information available with respect to the Company as required by subsection (c) of Rule 144) and the holder is not and has not been an Affiliate of the Company within the 90 days prior to the date of exercise of the Warrant, the Warrant Shares issued pursuant to any such exercise shall be issued free of all legends. If at any time following the date hereof the Registration Statement (or any subsequent registration statement registering the sale or resale of the Warrant Shares) is not effective or is not otherwise available for the sale or resale of the Warrant Shares, the Company shall immediately notify the holders of the Warrants in writing that such registration statement is not then effective and thereafter shall promptly notify such holders when the registration statement is effective again and available for the sale or resale of the Warrant Shares (it being understood and agreed that the foregoing shall not limit the ability of the Company to issue, or any Purchaser to sell, any of the Warrant Shares in compliance with applicable federal and state securities laws). The Company shall use reasonable best efforts to keep a registration statement (including the Registration Statement) registering the issuance or resale of the Warrant Shares effective until the earliest of (i) the time that the Warrants have expired, and (ii) the six-month anniversary of the date of issuance of the Warrants (or the one-year anniversary of the date of issuance in the event there is not adequate current public information available with respect to the Company as required by subsection (c) of Rule 144).

4.2 Securities Laws Disclosure; Publicity. The Company shall (a) by 9:30 a.m. (New York City time) on January 7, 2011, issue a press release disclosing the material terms of the transactions contemplated hereby, and (b) by the end of the first Trading Day immediately following the date hereof, file a Current Report on Form 8-K, which shall include the Transaction Documents as exhibits thereto. From and after the issuance of such press release, the Company represents to the Purchasers that it shall have publicly disclosed all material, non-public information delivered to any of the Purchasers by the Company or any of its Subsidiaries, or any of their respective officers, directors, employees or agents in connection with the

transactions contemplated by the Transaction Documents. The Company and each Purchaser shall consult with each other in issuing any other press releases with respect to the transactions contemplated hereby (other than with respect to the closing of the transaction contemplated by the Transaction Documents), and neither the Company nor any 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 press release of any Purchaser, or without the prior consent of each Purchaser, with respect to any press release 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 public statement or communication. Notwithstanding the foregoing, the Company shall not publicly disclose the name of any Purchaser, or include the name of any Purchaser in any filing with the Commission or any regulatory agency or Trading Market, without the prior written consent of such Purchaser, except (a) as required by federal securities law in connection with the filing of final Transaction Documents (including signature pages thereto) with the Commission and (b) to the extent such disclosure is required by law or Trading Market regulations, in which case the Company shall provide the Purchasers with prior notice of such disclosure permitted under this clause (b).

4.3 **Non-Public Information.** Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, the Company covenants and agrees that neither it, nor any other Person acting on its behalf will provide any Purchaser or its agents or counsel with any information that the Company believes constitutes material non-public information, unless prior thereto such Purchaser shall have executed an agreement with the Company regarding the confidentiality and use of such information. The Company understands and confirms that each Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company.

4.4 **Use of Proceeds.** The Company shall use the net proceeds from the sale of the Securities hereunder as set forth in the Prospectus Supplement.

4.5 **Indemnification of Purchasers.** Subject to the provisions of this Section 4.5 and to the extent permitted by law, the Company will indemnify and hold each Purchaser and its directors, officers, shareholders, members, partners, employees and agents (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title), each Person who controls such Purchaser (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, shareholders, agents, members, partners or employees (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title) of such controlling persons (each, a "**Purchaser Party**") harmless from any and all losses, liabilities, obligations, claims, contingencies, damages, costs and expenses, including all judgments, amounts paid in settlements, court costs and reasonable attorneys' fees and costs of investigation that any such Purchaser Party may suffer or incur as a result of or relating to (a) any breach of any of the representations, warranties, covenants or agreements made by the Company in this Agreement or in the other Transaction Documents or (b) any action instituted against a Purchaser Party in any capacity, or any of them or their respective Affiliates, by any stockholder of the Company who is not an Affiliate of such Purchaser Party, with respect to any of the transactions contemplated by the Transaction Documents (unless such action is based upon a

breach of such Purchaser Party's representations, warranties or covenants under the Transaction Documents or any agreements or understandings such Purchaser Party may have with any such stockholder or any violations by such Purchaser Party of state or federal securities laws or any conduct by such Purchaser Party which constitutes fraud, gross negligence, willful misconduct or malfeasance (collectively, the "Carve-Outs"). If any action shall be brought against any Purchaser Party in respect of which indemnity may be sought pursuant to this Agreement, such Purchaser Party shall promptly notify the Company in writing, and the Company shall have the right to assume the defense thereof with counsel of its own choosing reasonably acceptable to the Purchaser Party. Any Purchaser Party shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Purchaser Party except to the extent that (i) the employment thereof has been specifically authorized by the Company in writing, (ii) the Company has failed after a reasonable period of time to assume such defense and to employ counsel or (iii) in such action there is, in the reasonable opinion of counsel, a material conflict on any material issue between the position of the Company and the position of such Purchaser Party, in which case the Company shall be responsible for the reasonable fees and expenses of no more than one such separate counsel. The Company will not be liable to any Purchaser Party under this Agreement (y) for any settlement by a Purchaser Party effected without the Company's prior written consent, which shall not be unreasonably withheld or delayed; or (z) to the extent, but only to the extent that a loss, claim, damage or liability is attributable to any Purchaser Party's breach of any of the representations, warranties, covenants or agreements made by such Purchaser Party in this Agreement or in the other Transaction Documents. The Company will have the exclusive right to settle any claim or proceeding provided that the Company will not settle any such claim, action or proceeding without the prior written consent of the Purchaser Party, which shall not be unreasonably withheld or delayed; provided that such consent shall not be required if the settlement includes a full and unconditional release of the Purchase Party from all liability arising or that may arise out of such claim or proceeding and does not include a statement as to or an admission or fault, culpability or a failure to act by or on behalf of any Purchaser Party. The indemnification required by this Section 4.5 shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as and when bills are received or are incurred. To the extent that any payment made to a Purchaser Party is determined to have been improper by reason of the underlying action being based on conduct or circumstances set forth in the definition of the Carve-Outs, such Purchase Party will promptly pay the Company such amount. The indemnity agreements contained herein shall be in addition to any cause of action or similar right of any Purchaser Party against the Company or others, and (y) any liabilities the Company may be subject to pursuant to law.

4.6 Reservation of Common Stock. As of the date hereof, the Company has reserved and the Company shall continue to reserve and keep available at all times, free of preemptive rights, a sufficient number of shares of Common Stock for the purpose of enabling the Company to issue Shares pursuant to this Agreement and Warrant Shares pursuant to any exercise of the Warrants.

4.7 Listing of Common Stock. The Company hereby agrees to use commercially reasonable efforts to list or quote all of the Shares and Warrant Shares on the principal Trading Market and promptly secure the listing or quotation of all of the Shares and Warrant Shares on such Trading Market. The Company further agrees, if the Company applies to have the Common



Stock traded on any other Trading Market, it will then include in such application all of the Shares and Warrant Shares, and will take such other action as is reasonably necessary to cause all of the Shares and Warrant Shares to be listed or quoted on such other Trading Market as promptly as possible. The Company will then take all action reasonably necessary to continue the listing of its Common Stock on a Trading Market and will comply in all respects with the Company's reporting, filing and other obligations under the bylaws or rules of such Trading Market.

4.8 Subsequent Equity Sales. From the date hereof until 15 days after the Closing Date, 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 4.8 shall not apply in respect of an Exempt Issuance, except that no Variable Rate Transaction shall be an Exempt Issuance.

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

4.10 Certain Transactions and Confidentiality. Each Purchaser, severally and not jointly with the other Purchasers, covenants that neither it nor any Affiliate acting on its behalf or pursuant to any understanding with it will execute any purchases or sales, including Short Sales of any of the Company's securities during the period commencing with the execution of this Agreement and ending at such time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.2. Each Purchaser, severally and not jointly with the other Purchasers, covenants that until such time as the transactions contemplated by this Agreement are publicly disclosed by the Company pursuant to the initial press release as described in Section 4.2, such Purchaser will maintain the confidentiality of the existence and terms of this transaction and the information included in the Transaction Documents and the Disclosure Schedules. Notwithstanding the foregoing and notwithstanding anything contained in this Agreement to the contrary, the Company expressly acknowledges and agrees that (i) no Purchaser makes any representation, warranty or covenant hereby that it will not engage in effecting transactions in any securities of the Company after the time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.2, (ii) no Purchaser shall be restricted or prohibited from effecting any transactions in any securities of the Company in accordance with applicable securities laws from and after the time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.4 and (iii) no Purchaser shall have any duty of confidentiality to the Company or its Subsidiaries after the issuance of the initial press release as described in Section 4.2. Notwithstanding the foregoing, in the case of a Purchaser that is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Purchaser's assets and the portfolio managers have no direct knowledge of the investment decisions made by

the portfolio managers managing other portions of such Purchaser's assets, the covenant set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Securities covered by this Agreement.

4.11 Capital Changes. Until one year after the Closing Date, the Company shall not undertake a reverse or forward stock split of the Common Stock without the prior written consent of the Purchasers holding a majority in interest of the Shares; provided, however, that Purchasers who were original parties to this Agreement hold at least fifteen percent (15%) of the Shares purchased pursuant to this Agreement.

**ARTICLE V.**  
**MISCELLANEOUS**

5.1 Termination. This Agreement may be terminated by any Purchaser, as to such Purchaser's obligations hereunder only and without any effect whatsoever on the obligations between the Company and the other Purchasers, by written notice to the other parties, if the Closing has not been consummated on or before January 14, 2011; provided, however, that such termination will not affect the right of any party to sue for any breach by any other party (or parties).

5.2 Fees and Expenses. Except as expressly set forth in the Transaction Documents to the contrary, each party shall pay the fees and expenses of its advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of this Agreement. The Company shall pay all Transfer Agent fees, stamp taxes and other taxes and duties levied in connection with the delivery of any Securities to the Purchasers.

5.3 Entire Agreement. The Transaction Documents, together with the exhibits and schedules thereto, the Prospectus and the Prospectus Supplement, contain the entire understanding of the parties with respect to the subject matter hereof and thereof and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules.

5.4 Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of: (a) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number set forth on the signature pages attached hereto at or prior to 5:30 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number set forth on the signature pages attached hereto on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (c) the second (2<sup>nd</sup>) Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service or (d) upon actual receipt by the party to whom such notice is required to be given. The address for such notices and communications shall be as set forth on the signature pages attached hereto.

5.5 Amendments; Waivers. No provision of this Agreement may be waived, modified, supplemented or amended except in a written instrument signed, in the case of an

amendment, by the Company and the Purchasers holding at least 67% in interest of the Shares based on the initial Subscription Amounts hereunder or, in the case of a waiver, by the party against whom enforcement of any such waived provision is sought. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right.

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

5.7 **Successors and Assigns.** This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns. The Company may not assign this Agreement or any rights or obligations hereunder without the prior written consent of each Purchaser (other than by merger). Any Purchaser may assign any or all of its rights under this Agreement to any Person to whom such Purchaser assigns or transfers any Securities, provided that such transferee agrees in writing to be bound, with respect to the transferred Securities, by the provisions of the Transaction Documents that apply to the "Purchasers."

5.8 **No Third-Party Beneficiaries.** This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person, except as otherwise set forth in Section 4.8.

5.9 **Governing Law.** All questions concerning the construction, validity, enforcement and interpretation of the Transaction Documents shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Agreement and any other Transaction Documents (whether brought against a party hereto or its respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any of the Transaction Documents), and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, 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. If either party shall commence an action, suit or proceeding to enforce any provisions of the Transaction Documents, then, in addition to the obligations of the Company under Section 4.5, the prevailing party in such action,

suit or proceeding shall be reimbursed by the other party for its reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

5.10 Survival. The representations and warranties contained herein shall survive the Closing and the delivery of the Securities.

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

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

5.13 Rescission and Withdrawal Right. Notwithstanding anything to the contrary contained in (and without limiting any similar provisions of) any of the other Transaction Documents, whenever any Purchaser exercises a right, election, demand or option under a Transaction Document and the Company does not timely perform its related obligations within the periods therein provided, then such Purchaser may rescind or withdraw, in its sole discretion from time to time upon written notice to the Company, any relevant notice, demand or election in whole or in part without prejudice to its future actions and rights; provided, however, that in the case of a rescission of an exercise of a Warrant, the applicable Purchaser shall be required to return any shares of Common Stock subject to any such rescinded exercise notice concurrently with the return to such Purchaser of the aggregate exercise price paid to the Company for such shares and the restoration of such Purchaser's right to acquire such shares pursuant to such Purchaser's Warrant (including, issuance of a replacement warrant certificate evidencing such restored right).

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

costs (including customary indemnity) associated with the issuance of such replacement Securities.

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

5.16 Payment Set Aside. To the extent that the Company makes a payment or payments to any Purchaser pursuant to any Transaction Document or a Purchaser enforces or exercises its rights thereunder, and such payment or payments or the proceeds of such enforcement or exercise or any part thereof are subsequently invalidated, declared to be fraudulent or preferential, set aside, recovered from, disgorged by or are required to be refunded, repaid or otherwise restored to the Company, a trustee, receiver or any other Person under any law (including, without limitation, any bankruptcy law, state or federal law, common law or equitable cause of action), then to the extent of any such restoration the obligation or part thereof originally intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been made or such enforcement or setoff had not occurred.

5.17 Independent Nature of Purchasers' Obligations and Rights. The obligations of each Purchaser under any Transaction Document are several and not joint with the obligations of any other Purchaser, and no Purchaser shall be responsible in any way for the performance or non-performance of the obligations of any other Purchaser under any Transaction Document. Nothing contained herein or in any other Transaction Document, and no action taken by any Purchaser pursuant hereto or thereto, shall be deemed to constitute the Purchasers as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Purchasers are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Transaction Documents. Each Purchaser shall be entitled to independently protect and enforce its rights including, without limitation, the rights arising out of this Agreement or out of the other Transaction Documents, and it shall not be necessary for any other Purchaser to be joined as an additional party in any proceeding for such purpose. Each Purchaser has been represented by its own separate legal counsel in its review and negotiation of the Transaction Documents. For reasons of administrative convenience only, each Purchaser and its respective counsel have chosen to communicate with the Company through WS. WS does not represent any of the Purchasers and only represents Rodman & Renshaw, LLC, the placement agent. The Company has elected to provide all Purchasers with the same terms and Transaction Documents for the convenience of the Company and not because it was required or requested to do so by any of the Purchasers. It is expressly understood and agreed that each provision contained in this Agreement and in each other Transaction Document is between the Company and a Purchaser, solely, and not between the Company and the Purchasers collectively and not between and among the Purchasers.

5.18 Liquidated Damages. The Company's obligations to pay any partial liquidated damages or other amounts owing under the Transaction Documents is a continuing obligation of

the Company and shall not terminate until all unpaid partial liquidated damages and other amounts have been paid notwithstanding the fact that the instrument or security pursuant to which such partial liquidated damages or other amounts are due and payable shall have been canceled.

5.19 Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day.

5.20 Construction. The parties agree that each of them and/or their respective counsel have reviewed and had an opportunity to revise the Transaction Documents and, therefore, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of the Transaction Documents or any amendments thereto. In addition, each and every reference to share prices and shares of Common Stock in any Transaction Document shall be subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Common Stock that occur after the date of this Agreement.

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

*(Signature Pages Follow)*

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

**ADVENTRX PHARMACEUTICALS, INC.**

Address for Notice:

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

12390 El Camino Real, Suite 150  
San Diego, CA 92130

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK  
SIGNATURE PAGE FOR PURCHASER FOLLOWS]

[PURCHASER SIGNATURE PAGES TO ANX SECURITIES PURCHASE AGREEMENT]

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

Name of Purchaser: \_\_\_\_\_

Signature of Authorized Signatory of Purchaser: \_\_\_\_\_

Name of Authorized Signatory: \_\_\_\_\_

Title of Authorized Signatory: \_\_\_\_\_

Email Address of Authorized Signatory: \_\_\_\_\_

Facsimile Number of Authorized Signatory: \_\_\_\_\_

Address for Notice to Purchaser:

Address for Delivery of Securities to Purchaser (if not same as address for notice):

Subscription Amount: \$ \_\_\_\_\_

Shares: \_\_\_\_\_

Series A Warrant Shares: \_\_\_\_\_

Series B Warrant Shares: \_\_\_\_\_

EIN Number (if applicable): \_\_\_\_\_

o Notwithstanding anything contained in this Agreement to the contrary, by checking this box (i) the obligations of the above-signed to purchase the securities set forth in this Agreement to be purchased from the Company by the above-signed, and the obligations of the Company to sell such securities to the above-signed, shall be unconditional and all conditions to Closing shall be disregarded, (ii) the Closing shall occur on the third (3<sup>rd</sup>) Trading Day following the date of this Agreement and (iii) any condition to Closing contemplated by this Agreement (but prior to being disregarded by clause (i) above) that required delivery by the Company or the above-signed of any agreement, instrument, certificate or the like or purchase price (as applicable) shall no longer be a condition and shall instead be an unconditional obligation of the Company or the above-signed (as applicable) to deliver such agreement, instrument, certificate or the like or purchase price (as applicable) to such other party on the Closing Date.

[SIGNATURE PAGES CONTINUE]



**[SERIES A/B] COMMON STOCK PURCHASE WARRANT**  
**ADVENTRX PHARMACEUTICALS, INC.**

Warrant No.: \_\_\_\_\_

Initial Exercise Date: January 11, 2011

Warrant Shares: \_\_\_\_\_

THIS [SERIES A/B] COMMON STOCK PURCHASE WARRANT (this "Warrant") certifies that, for value received, \_\_\_\_\_ (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the Initial Exercise Date (as defined above) and on or prior to the close of business on \_\_\_\_\_<sup>1</sup> (the "Termination Date") but not thereafter, to subscribe for and purchase from ADVENTRX Pharmaceuticals, Inc., a Delaware corporation (the "Company"), up to \_\_\_\_\_ shares (the "Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Purchase Agreement"), dated January 6, 2011, among the Company and the parties that are signatories thereto.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of the Holder appearing on the books of the Company) of a duly executed facsimile copy of the Notice of Exercise Form annexed hereto. Within three (3) Trading Days following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer of immediately available funds, or pursuant to the cashless exercise procedure specified in Section 2(c) below, if such cashless exercise procedure is available and is specified in the applicable Notice of Exercise. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and this Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days after the date the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the

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<sup>1</sup> One year and five Trading Days from the Initial Exercise Date for the Series A Warrants; five years from the Initial Exercise Date for the Series B Warrants

total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise Form within 1 Business Day after receipt of such notice. In the event of any dispute or discrepancy, the records of the Holder shall be controlling and determinative in the absence of manifest error. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of the Common Stock under this Warrant shall be \$2.75, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive that number of Warrant Shares equal to the quotient obtained by dividing  $[(A-B)(X)]$  by (A), where:

(A) = the VWAP on the Trading Day immediately preceding the date on which the Holder elects to exercise this Warrant by means of a "cashless exercise," as set forth in the applicable Notice of Exercise;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if the OTC Bulletin Board is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board, (c) if the Common Stock is not then listed or quoted for trading on the OTC Bulletin Board and if prices for the Common Stock are then reported in the "Pink Sheets" published by Pink OTC Markets, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Company and reasonably

acceptable to the Holders of a majority in interest of the Securities then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. Warrant Shares purchased hereunder shall be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's prime broker 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 the Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery to the address specified by the Holder in the Notice of Exercise, in each case by the date that is three (3) Trading Days after the latest of (A) the delivery to the Company of the Notice of Exercise and receipt of the DWAC request from the Holder's prime broker (if applicable), (B) surrender of this Warrant (if required) and (C) payment of the aggregate Exercise Price as set forth above (including by cashless exercise, if permitted) (such date, the "Warrant Share Delivery Date"). The Warrant Shares shall be deemed to have been issued, and the Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date this Warrant has been properly exercised, with payment to the Company of the Exercise Price (or by cashless exercise, if permitted) and all taxes required to be paid by the Holder, if any, pursuant to Section 2(d)(vi) prior to the issuance of such shares, having been paid.

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

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit either to the Holder's prime broker the Warrant Shares or to the Holder a certificate or the certificates representing the Warrant Shares, as applicable pursuant to Section 2(d)(i) hereof, by the Warrant Share Delivery Date, then, the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to instruct the Transfer Agent to transmit to the

Holder's prime broker the Warrant Shares, or to the Holder a certificate or the certificates representing the Warrant Shares, pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such 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 exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of this 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 the 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. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver certificates representing shares of Common Stock upon exercise of this Warrant as required pursuant to the terms hereof.

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

vi. Charges, Taxes and Expenses. Issuance of certificates for Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be paid by the Company, and such certificates shall be issued in the name of the Holder

or in such name or names as may be directed by the Holder; provided, however, that in the event certificates for Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

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

e) Holder's Exercise Limitations. 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 2 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 any other Persons acting as a group together with the Holder or any of the Holder's Affiliates) would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates 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 and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of 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 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates) 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 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 and shall have no liability for exercises of this Warrant that are not in compliance with the Beneficial Ownership Limitation. 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 2(e), 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 shall within two 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 since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% 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 Holder, upon not less than 61 days' prior notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any such increase or decrease will not be effective until the 61<sup>st</sup> day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) 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.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a dividend or otherwise makes a distribution or distributions, in each case payable in shares of its Common Stock, to all holders of Common Stock (and not to the Holders) (excluding, for avoidance of doubt, any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, or (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, then in each case the Exercise Price shall be multiplied by a fraction, of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding at 5:00 p.m. (New York City time) on the Trading Day immediately before such event, and of which the denominator shall be the number of shares of Common Stock that would be outstanding immediately after, and solely as a result of, such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately prior to 9:00 a.m. (New York city time) on the Ex-Dividend Date for such dividend or distribution or the effective date of such subdivision

or combination, as the case may be. “Ex-Dividend Date” means, when used with respect to any dividend, distribution or issuance, the first date on which the share of Common Stock trade on the Trading Market, regular way, without the right to receive the relevant dividend, distribution or issuance.

b) Subsequent Rights Offerings. If the Company, at any time while the Warrant is outstanding, shall issue rights, options or warrants to all holders of Common Stock (and not to the Holder) entitling them to subscribe for or purchase shares of Common Stock, the same rights, options or warrants shall be issued to the Holder as if the then-unexercised portion of this Warrant had been exercised in full.

c) Pro Rata Distributions. If the Company, at any time while this Warrant is outstanding, shall distribute to all holders of Common Stock (and not to the Holder) evidences of its indebtedness or assets (including cash and cash dividends) or rights or warrants to subscribe for or purchase any security other than the Common Stock (which shall be subject to Section 3(a)), then in each such case the Exercise Price shall be adjusted by multiplying the Exercise Price in effect immediately prior to the record date fixed for determination of stockholders entitled to receive such distribution by a fraction of which the denominator shall be the VWAP determined as of the record date mentioned above, and of which the numerator shall be such VWAP on such record date less the then per share fair market value at such record date of the portion of such assets or evidence of indebtedness so distributed applicable to one outstanding share of the Common Stock as determined by the Board of Directors in good faith. In each case the adjustments shall be described in a statement provided to the Holder of the portion of assets or evidences of indebtedness so distributed or such subscription rights applicable to one share of Common Stock. Such adjustment shall be made whenever any such distribution is made and shall become effective immediately after the record date mentioned above.

d) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person and the Company is not the surviving corporation, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group of Persons acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a “Fundamental Transaction”) then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction that is (1) an all cash transaction, (2) a “Rule 13e-3 transaction” as defined in Rule 13e-3 under the Exchange Act, or (3) a Fundamental Transaction involving a person or entity not traded on a national securities exchange, including, but not limited to, the NYSE Amex, the Nasdaq Global Select Market, the Nasdaq Global Market, or the Nasdaq Capital Market, the Company or any Successor Entity (as defined below) shall, at the Holder’s option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction, purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction. “Black Scholes Value” means the value of this Warrant based on the Black and Scholes Option Pricing Model obtained from the “OV” function on Bloomberg, L.P. (“Bloomberg”) determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the HVT function on Bloomberg as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the “Successor Entity”) to assume in writing all of the obligations of the Company under this Warrant and the other Transaction Documents in accordance with the provisions of this Section 3(d) pursuant to written agreements and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, 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 and the other Transaction Documents 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 and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Company herein.

e) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

f) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly mail to the Holder a notice setting forth the Exercise Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If during the term in which this Warrant may be exercised by the Holder (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be mailed to the Holder at its last address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to mail such notice or any defect therein or in the mailing thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the



Company shall simultaneously disclose such information in compliance with applicable securities laws. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

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

b) New Warrants. This Warrant may be combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for this Warrant or Warrants to be combined in accordance with such notice. All Warrants issued on transfers or exchanges shall include reference to the initial issuance date set forth on the first page of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto and the Warrant number.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company 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 written notice to the contrary.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i).

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security

reasonably satisfactory to it, and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate. Applicants for a replacement Warrant under such circumstances shall also comply with such other reasonable regulations and procedures and pay such other reasonable charges as the Company may prescribe.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

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

e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Purchase Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, will have restrictions upon resale imposed by state and federal securities laws unless the Holder utilizes the cashless exercise provisions hereof.

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

in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered to the registered Holder at the last address as it shall appear upon the Warrant Register of the Company.

i) 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 Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

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

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

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

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

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

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*(Signature Pages Follow)*

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

**ADVENTRX PHARMACEUTICALS, INC.**

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

**NOTICE OF EXERCISE**

TO: ADVENTRX PHARMACEUTICALS, INC.

(1) The undersigned hereby elects to purchase \_\_\_\_\_ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States; or

[if permitted] the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Unless the Warrant Shares will be delivered electronically via DWAC, please issue a certificate or certificates representing said Warrant Shares in the name of the undersigned or in such other name as is specified below:

\_\_\_\_\_

and deliver the physical certificate representing said Warrant Shares to the following address:

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If the Warrant Shares will be delivered electronically via DWAC, please issue them to the following account:

- o Name of DTC Participant: \_\_\_\_\_
- o DTC Participant Number: \_\_\_\_\_
- o Name of Account at DTC Participant to be credited with the Warrant Shares:  
\_\_\_\_\_
- o Account Number at DTC Participant to be credited with the Warrant Shares:  
\_\_\_\_\_

[SIGNATURE OF HOLDER]

Name of Investing Entity: \_\_\_\_\_

Signature of Authorized Signatory of Investing Entity: \_\_\_\_\_

Name of Authorized Signatory: \_\_\_\_\_

Title of Authorized Signatory: \_\_\_\_\_

Date: \_\_\_\_\_

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**ASSIGNMENT FORM**

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

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

\_\_\_\_\_ whose address is

\_\_\_\_\_.

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

Holder's Signature: \_\_\_\_\_

Holder's Address: \_\_\_\_\_

Signature Guaranteed: \_\_\_\_\_

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank or trust company. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

**DLA Piper LLP (US)**  
4365 Executive Drive, Suite 1100  
San Diego, California 92121-2133  
www.dlapiper.com

T 858.677.1400  
F 858.677.1401

January 6, 2011

ADVENTRX Pharmaceuticals, Inc.  
12390 El Camino Real, Suite 150  
San Diego, California 92130

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the sale and issuance by ADVENTRX Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), of up to an aggregate of 8,184,556 shares of Common Stock, par value \$0.001 per share, of the Company (the "**Common Shares**"), together with warrants to purchase up to an additional 4,092,278 shares of Common Stock (the "**Warrants**"), and 4,092,278 shares of Common Stock of the Company issuable upon exercise of the Warrants (the "**Underlying Common**" and together with the Warrants and the Common Shares, the "**Securities**"), pursuant to a Registration Statement on Form S-3 (File No. 333-165691) (the "**Registration Statement**") filed with the Securities and Exchange Commission (the "**Commission**") under the Securities Act of 1933, as amended (the "**Act**"), the related prospectus included therein (the "**Prospectus**") and the Prospectus Supplement No. 2 to be filed with the Commission pursuant to Rule 424(b) promulgated under the Act (the "**Prospectus Supplement**").

In connection with this opinion, we have examined and relied upon the Registration Statement, the related Prospectus and Prospectus Supplement, the Securities Purchase Agreement, dated January 6, 2011, by and among the Company and each purchaser identified on the signature pages thereto (the "**Securities Purchase Agreement**"), the form of Warrant to be filed as an exhibit to a Current Report of the Company on Form 8-K, the Company's Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, as currently in effect, and the originals or copies certified to our satisfaction of such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below.

In rendering this opinion, we have assumed the genuineness and authenticity of all signatures on original documents; the genuineness and authenticity of all documents submitted to us as originals; the conformity to originals of all documents submitted to us as copies; the accuracy, completeness and authenticity of certificates of public officials; and the due authorization, execution and delivery of all documents where due authorization, execution and delivery are prerequisites to the effectiveness of such documents. With regard to the Conversion Securities and Underlying Securities, we have assumed that at the time of issuance or sale, a sufficient number of shares of Common Stock are authorized and available for issuance.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that (i) the Common Shares, when issued and sold against payment therefore as provided in the Securities

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Purchase Agreement and in accordance with the Registration Statement and the related Prospectus and Prospectus Supplement, will be validly issued, fully paid and nonassessable, (ii) provided that the Warrants have been duly executed and delivered by the Company and duly delivered to the purchasers thereof against payment therefor, then the Warrants, when issued and sold as provided in the Securities Purchase Agreement and in accordance with the Registration Statement and the related Prospectus and Prospectus Supplement, will be valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms and (iii) the Underlying Common, when issued and sold against payment therefor in accordance with the terms of the Securities Purchase Agreement and Warrants and in accordance with the Registration Statement and the related Prospectus and Prospectus Supplement, will be validly issued, fully paid and nonassessable.

In addition to the qualifications set forth above, the foregoing opinion is further qualified as follows:

- (a) The foregoing opinion is rendered as of the date hereof. We assume no obligation to update such opinion to reflect any facts or circumstances that may hereafter come to our attention or changes in the law which may hereafter occur.
  - (b) We are members of the Bar of the State of California and we do not express any opinion herein concerning any law other than the Delaware General Corporation Law, the substantive law of the State of California and the substantive federal securities laws of the United States of America. We express no opinion as to the laws of any other state or jurisdiction of the United States or of any foreign jurisdiction. We have made no inquiry into the laws and regulations or as to laws relating to choice of law or conflicts of law principles. The opinion expressed herein is subject to the effect of judicial decisions which may permit the introduction of parol evidence to modify the terms or the interpretation of agreements.
  - (c) We express no opinion as to compliance with the securities (or "blue sky"), broker licensing, real estate syndication or mortgage lending laws of any jurisdiction.
  - (d) The opinion stated herein relating to the validity and binding nature of obligations of the Company is subject to (i) the effect of any applicable bankruptcy, insolvency (including, without limitation, all laws relating to fraudulent transfers), reorganization, moratorium or similar laws affecting creditors' rights generally and (ii) the effect of general principles of equity (regardless of whether considered in a proceeding in equity or at law).
  - (e) This opinion is limited to the matters set forth herein, and no other opinion should be inferred beyond the matters expressly stated.
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ADVENTRX Pharmaceuticals, Inc.  
January 6, 2011  
Page Three

We consent to the reference to our firm under the caption "Legal Matters" in the Prospectus Supplement and to the filing of this opinion as an exhibit to a Current Report of the Company on Form 8-K. In giving our consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ DLA Piper LLP (US)

**DLA Piper LLP (US)**



January 5, 2011

STRICTLY CONFIDENTIAL

Mr. Brian M. Culley  
Chief Executive Officer  
Adventrx Pharmaceuticals Inc.  
6725 Mesa Ridge Road  
Suite 100  
San Diego, CA 92121

Dear Mr. Culley:

This letter (this "Agreement") constitutes the agreement between Adventrx Pharmaceuticals Inc. (the "Company") and Rodman & Renshaw, LLC ("Rodman" or the "Placement Agent") that Rodman shall serve as the exclusive (i) placement agent for the Company ("Direct Placement") on a reasonable best efforts basis or (ii) underwriter for the Company, on a firm commitment basis ("Underwritten Placement"), in connection with the proposed reasonable best efforts placement or series of placements to occur during the term of this Agreement (the "Placement"). The Placement shall consist of registered or unregistered securities (the "Securities") of the Company, which Securities may include one or any combination of the following: shares of the Company's common stock, par value \$0.001 per share (the "Common Stock"), warrants to purchase shares of Common Stock ("Warrants") or securities of the Company convertible into shares of Common Stock of the Company ("Convertible Securities"). The terms of such Placement and the Securities shall be mutually agreed upon by the Company, Rodman and, if a Direct Placement, the purchasers (each, a "Purchaser" and collectively, the "Purchasers") and nothing herein implies that Rodman would have the power or authority to bind the Company or any Purchaser, and the Company shall not, and nothing herein implies that the Company shall, have an obligation to issue any Securities or complete a Placement. This Agreement and the documents executed and delivered by the Company and the Purchasers in connection with a Placement shall be collectively referred to herein as the "Transaction Documents." The date of a closing of a Placement shall be referred to herein as the "Closing Date." The Company expressly acknowledges and agrees that the execution of this Agreement does not constitute a commitment by Rodman or any Purchaser to purchase the Securities and does not ensure the successful placement of the Securities or any portion thereof or the success of Rodman with respect to securing any other financing on behalf of the Company. In the event the Placement will consist of registered securities, the provisions of Annex A will apply in addition to the provisions set forth herein.

In the event that a Placement is an Underwritten Placement, prior to the commencement of the Underwritten Placement, the Company shall negotiate the terms of an underwriting agreement with Rodman, the starting point of which shall be Rodman's standard form, modified as appropriate to reflect the terms of an Underwritten Placement and containing such terms, covenants, conditions, representations, warranties, and providing for the delivery of legal opinions, comfort letters and officer's certificates, all in form and substance satisfactory to Rodman and its counsel and the Company.

In the event that a Placement is a Direct Placement, the sale of Securities to any Purchaser will be evidenced by a purchase agreement ("Purchase Agreement") between the Company and such Purchaser in a form reasonably satisfactory to the Company and Rodman. Prior to the signing of any Purchase

**Rodman & Renshaw, LLC o 1251 Avenue of the Americas, 20th Floor, New York, NY 10020  
Tel: 212 356 0500 o Fax: 212 581 5690 o [www.rodman.com](http://www.rodman.com) o Member: FINRA, SIPC**

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Agreement, officers of the Company with responsibility for financial affairs will be available to answer inquiries from prospective Purchasers.

A. Fees. In connection with the Services described above, the Company shall pay to Rodman the following compensation:

1. Placement Agent's Fee. The Company shall pay to Rodman a cash placement fee (the "Placement Agent's Fee") equal to 6.5% of the aggregate purchase price paid by each purchaser of Securities that are placed in a Placement during the Term. The Placement Agent's Fee shall be paid at the closing of the Placement (the "Closing") from the gross proceeds of the Securities sold.

2. Warrants. As additional compensation for the Services, the Company shall issue to Rodman or its designees at the Closing, warrants (the "Rodman Warrants") to purchase that number of shares of common stock of the Company ("Shares") equal to 5% of the aggregate number of Shares placed in the Placement, plus any Shares underlying any convertible Securities sold in the Placement to such purchasers, but excluding shares underlying any warrants issued to investors in the Placement. The Rodman Warrants shall have the same terms as the warrants issued to investors ("Investors") in the Placement, except that the exercise price shall be 125% of the public offering price per share and they shall have an exercise period of five years from the effective date of the shelf registration statement referred to in Section 2.A of Annex A, attached hereto. If no warrants are issued to Investors, the Rodman Warrants shall have an exercise price equal to 125% of the price at which Shares are issued to Investors, or, if no Shares are issued, 125% of the current market price of the Shares on the Closing Date and an exercise period of five years from the effective date of the shelf registration statement referred to in Section 2.A of Annex A, attached hereto. If required by FINRA Rule 5110, the Rodman Warrants shall not be transferable for six months from the date of the Placement, and further, the number of Shares underlying the Rodman Warrants shall be reduced if necessary to comply with FINRA rules or regulations.

B. Term and Termination of Engagement. The term (the "Term") of Rodman's engagement will begin on the date hereof and end on the earlier of the consummation of the Placement or two business days after the receipt by either party hereto of written notice of termination; provided that no such notice may be given by the Company for a period of 30 days after the date hereof. Notwithstanding anything to the contrary contained herein, the provisions concerning confidentiality, indemnification and contribution contained herein and the Company's obligations contained in Section H hereof will survive any expiration or termination of this Agreement, and the Company's obligation to pay fees actually earned and payable and to reimburse expenses actually incurred and reimbursable pursuant to Section A hereof, if any, will survive any expiration or termination of this Agreement, as permitted by FINRA Rule 5110(f)(2)(d). Upon any expiration or termination of this Agreement, the Company's obligation to reimburse Rodman for out of pocket accountable expenses actually incurred by Rodman and reimbursable upon closing of the Placement pursuant to Section A, if any, or otherwise due under Section A hereof, will survive any expiration or termination of this Agreement, as permitted by FINRA Rule 5110(f)(2)(d).

C. [Intentionally Omitted]

D. Use of Information. The Company will furnish Rodman such written information as Rodman reasonably requests in connection with the performance of its services hereunder. The Company understands, acknowledges and agrees that, in performing its services hereunder, Rodman will use and rely entirely upon such information as well as publicly available information regarding the Company and other potential parties to an Placement and that Rodman does not assume responsibility for independent verification of the accuracy or completeness of any information, whether publicly available or otherwise

furnished to it, concerning the Company or otherwise relevant to an Placement, including, without limitation, any financial information, forecasts or projections considered by Rodman in connection with the provision of its services.

E. Confidentiality. In the event of the consummation or public announcement of any Placement, Rodman shall have the right to disclose its participation in such Placement, including, without limitation, the placement at its cost of “tombstone” advertisements in financial and other newspapers and journals. Rodman agrees not to use any confidential information concerning the Company provided to Rodman by the Company for any purposes other than those contemplated under this Agreement.

F. Securities Matters. The Company shall be responsible for any and all compliance with the securities laws applicable to it, including Regulation D and the Securities Act of 1933, as amended (the “Securities Act”), and Rule 506 promulgated thereunder, and unless otherwise agreed in writing, all state securities (“blue sky”) laws. Rodman agrees to cooperate with counsel to the Company in that regard.

G. Company Acknowledgement. The Company acknowledges that the Placement of convertible Securities may create significant risks, including the risk that the Company may have insufficient cash resources and/or registered shares to timely meet its payment and conversion obligations. The Company further acknowledges that, depending on the number and price of new shares issued, such transaction may result in substantial dilution which could adversely affect the market price of the Company’s shares.

H. Indemnity.

1. In connection with the Company’s engagement of Rodman as placement agent, the Company hereby agrees to indemnify and hold harmless Rodman and its affiliates, and the respective controlling persons, directors, officers, members, shareholders, agents and employees of any of the foregoing (collectively the “Indemnified Persons”), from and against any and all claims, actions, suits, proceedings (including those of shareholders), damages, liabilities and expenses incurred by any of them (including the reasonable fees and expenses of counsel), as incurred, (collectively a “Claim”), that are (A) related to or arise out of (i) any actions taken or omitted to be taken (including any untrue statements made or any statements omitted to be made) by the Company, or (ii) any actions taken or omitted to be taken by any Indemnified Person in connection with the Company’s engagement of Rodman, or (B) otherwise relate to or arise out of Rodman’s activities on the Company’s behalf under Rodman’s engagement, and the Company shall reimburse any Indemnified Person for all expenses (including the reasonable fees and expenses of counsel) as incurred by such Indemnified Person in connection with investigating, preparing or defending any such claim, action, suit or proceeding, whether or not in connection with pending or threatened litigation in which any Indemnified Person is a party. The Company will not, however, be responsible for any Claim that is finally judicially determined to have resulted from the gross negligence or willful misconduct of any person seeking indemnification for such Claim. The Company further agrees that no Indemnified Person shall have any liability to the Company for or in connection with the Company’s engagement of Rodman except for any Claim incurred by the Company as a result of such Indemnified Person’s gross negligence or willful misconduct.

2. The Company further agrees that it will not, without the prior written consent of Rodman, settle, compromise or consent to the entry of any judgment in any pending or threatened Claim in respect of which indemnification may be sought hereunder (whether or not any Indemnified Person is an actual or potential party to such Claim), unless such settlement, compromise or consent includes an unconditional, irrevocable release of each Indemnified Person from any and all liability arising out of such Claim.

3. Promptly upon receipt by an Indemnified Person of notice of any complaint or the assertion or institution of any Claim with respect to which indemnification is being sought hereunder, such Indemnified Person shall notify the Company in writing of such complaint or of such assertion or institution but failure to so notify the Company shall not relieve the Company from any obligation it may have hereunder, except and only to the extent such failure results in the forfeiture by the Company of substantial rights and defenses. If the Company so elects or is requested by such Indemnified Person, the Company will assume the defense of such Claim, including the employment of counsel reasonably satisfactory to such Indemnified Person and the payment of the fees and expenses of such counsel. In the event, however, that legal counsel to such Indemnified Person reasonably determines that having common counsel would present such counsel with a conflict of interest or if the defendant in, or target of, any such Claim, includes an Indemnified Person and the Company, and legal counsel to such Indemnified Person reasonably concludes that there may be legal defenses available to it or other Indemnified Persons different from or in addition to those available to the Company, then such Indemnified Person may employ its own separate counsel to represent or defend him, her or it in any such Claim and the Company shall pay the reasonable fees and expenses of such counsel. Notwithstanding anything herein to the contrary, if the Company fails timely or diligently to defend, contest, or otherwise protect against any Claim, the relevant Indemnified Party shall have the right, but not the obligation, to defend, contest, compromise, settle, assert crossclaims, or counterclaims or otherwise protect against the same, and shall be fully indemnified by the Company therefor, including without limitation, for the reasonable fees and expenses of its counsel and all amounts paid as a result of such Claim or the compromise or settlement thereof. In addition, with respect to any Claim in which the Company assumes the defense, the Indemnified Person shall have the right to participate in such Claim and to retain his, her or its own counsel therefor at his, her or its own expense.

4. The Company agrees that if any indemnity sought by an Indemnified Person hereunder is held by a court to be unavailable for any reason then (whether or not Rodman is the Indemnified Person), the Company and Rodman shall contribute to the Claim for which such indemnity is held unavailable in such proportion as is appropriate to reflect the relative benefits to the Company, on the one hand, and Rodman on the other, in connection with Rodman's engagement referred to above, subject to the limitation that in no event shall the amount of Rodman's contribution to such Claim exceed the amount of fees actually received by Rodman from the Company pursuant to Rodman's engagement. The Company hereby agrees that the relative benefits to the Company, on the one hand, and Rodman on the other, with respect to Rodman's engagement shall be deemed to be in the same proportion as (a) the total value paid or proposed to be paid or received by the Company pursuant to the Placement (whether or not consummated) for which Rodman is engaged to render services bears to (b) the fee paid or proposed to be paid to Rodman in connection with such engagement.

5. The Company's indemnity, reimbursement and contribution obligations under this Agreement (a) shall be in addition to, and shall in no way limit or otherwise adversely affect any rights that any Indemnified Party may have at law or at equity and (b) shall be effective whether or not the Company is at fault in any way.

I. Limitation of Engagement to the Company. The Company acknowledges that Rodman has been retained only by the Company, that Rodman is providing services hereunder as an independent contractor (and not in any fiduciary or agency capacity) and that the Company's engagement of Rodman is not deemed to be on behalf of, and is not intended to confer rights upon, any shareholder, owner or partner of the Company or any other person not a party hereto as against Rodman or any of its affiliates, or any of its or their respective officers, directors, controlling persons (within the meaning of Section 15 of the Securities Act or Section 20 of the Securities Exchange Act of 1934, as amended (the "Exchange Act")), employees or agents. Unless otherwise expressly agreed in writing by Rodman, no one other than the Company is authorized to rely upon this Agreement or any other statements or conduct of Rodman, and no one other than the Company is intended to be a beneficiary of this Agreement. The Company

acknowledges that any recommendation or advice, written or oral, given by Rodman to the Company in connection with Rodman's engagement is intended solely for the benefit and use of the Company's management and directors in considering a possible Placement, and any such recommendation or advice is not on behalf of, and shall not confer any rights or remedies upon, any other person or be used or relied upon for any other purpose. Rodman shall not have the authority to make any commitment binding on the Company. The Company, in its sole discretion, shall have the right to reject any investor introduced to it by Rodman. The Company agrees that it will perform and comply with the covenants and other obligations set forth in the purchase agreement (the "Purchase Agreement") and related transaction documents between the Company and the investors in the Placement (collectively with the Purchase Agreement, the "Transaction Documents") and that Rodman will be entitled to rely on the representations, warranties, agreements and covenants of the Company contained in such Transaction Documents as if such representations, warranties, agreements and covenants were made directly to Rodman by the Company.

J. Limitation of Rodman's Liability to the Company. Rodman and the Company further agree that neither Rodman nor any of its affiliates or any of its respective officers, directors, controlling persons (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act), employees or agents shall have any liability to the Company, its security holders or creditors, or any person asserting claims on behalf of or in the right of the Company (whether direct or indirect, in contract, tort, for an act of negligence or otherwise) for any losses, fees, damages, liabilities, costs, expenses or equitable relief arising out of or relating to this Agreement or the Services rendered hereunder, except for losses, fees, damages, liabilities, costs or expenses that arise out of or are based on any action of or failure to act by Rodman and that are finally judicially determined to have resulted solely from the gross negligence or willful misconduct of Rodman.

K. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York applicable to agreements made and to be fully performed therein. Any disputes that arise under this Agreement, even after the termination of this Agreement, will be heard only in the state or federal courts located in the City of New York, State of New York. The parties hereto expressly agree to submit themselves to the jurisdiction of the foregoing courts in the City of New York, State of New York. The parties hereto expressly waive any rights they may have to contest the jurisdiction, venue or authority of any court sitting in the City and State of New York. In the event of the bringing of any action, or suit by a party hereto against the other party hereto, arising out of or relating to this Agreement, the party in whose favor the final judgment or award shall be entered shall be entitled to have and recover from the other party the costs and expenses incurred in connection therewith, including its reasonable attorneys' fees. Any rights to trial by jury with respect to any such action, proceeding or suit are hereby waived by Rodman and the Company.

L. Notices. All notices hereunder will be in writing and sent by certified mail, hand delivery, overnight delivery or fax, if sent to Rodman, to Rodman & Renshaw, LLC, at the address set forth on the first page hereof, fax number (646) 841-1640, Attention: General Counsel, and if sent to the Company, to the address set forth on the first page hereof, fax number (858) 552-0876, Attention: Chief Executive Officer. Notices sent by certified mail shall be deemed received five days thereafter, notices sent by hand delivery or overnight delivery shall be deemed received on the date of the relevant written record of receipt, and notices delivered by fax shall be deemed received as of the date and time printed thereon by the fax machine.

M. Miscellaneous. This Agreement shall not be modified or amended except in writing signed by Rodman and the Company. This Agreement shall be binding upon and inure to the benefit of both Rodman and the Company and their respective assigns, successors, and legal representatives. This Agreement constitutes the entire agreement of Rodman and the Company with respect to this Placement and supersedes any prior agreements with respect to the subject matter hereof. If any provision of this Agreement is determined to be invalid or unenforceable in any respect, such determination will not affect such provision in any other respect, and the remainder of the Agreement shall remain in full force and effect. This Agreement may be executed in counterparts (including facsimile counterparts), each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

In acknowledgment that the foregoing correctly sets forth the understanding reached by Rodman and the Company, please sign in the space provided below, whereupon this letter shall constitute a binding Agreement as of the date indicated above.

Very truly yours,

RODMAN & RENSHAW, LLC

By /s/ John Borer  
Name: John Borer  
Title: Head of IB, Senior Managing Director

Accepted and Agreed:  
ADVENTRX PHARMACEUTICALS INC.

By /s/ Brian M. Culley  
Brian M. Culley  
Chief Executive Officer

Annex A

**Additional Provisions With Respect to a Registered Placement**

SECTION 1. [RESERVED]

**SECTION 2. REGISTRATION STATEMENT.**

In the event that a Placement consists of registered Securities (whether a Direct Placement or Underwritten Placement) off the Company's registration statement on Form S-3 (Registration File No. 333-165691), the Company represents and warrants to, and agrees with, the Placement Agent that as of the date of the Placement, as of the date of the Purchase Agreement and as of the closing date of the Placement (the "Closing Date"):

(A) The Company has filed with the Securities and Exchange Commission (the "Commission") a registration statement on Form S-3 (Registration File No. 333-165691) under the Securities Act of 1933, as amended (the "Securities Act"), which became effective on April 1, 2010, for the registration under the Securities Act of the Securities. At the time of such filing, the Company met the requirements of Form S-3 under the Securities Act. Such registration statement meets the requirements set forth in Rule 415(a)(1)(x) under the Securities Act and complies with said Rule. The Company will file with the Commission pursuant to Rule 424(b) under the Securities Act, and the rules and regulations (the "Rules and Regulations") of the Commission promulgated thereunder, a supplement to the form of prospectus included in such registration statement relating to the placement of the Securities and the plan of distribution thereof and has advised the Placement Agent of all further information (financial and other) with respect to the Company required to be set forth therein. Such registration statement, including the exhibits thereto, as amended at the date of this Agreement, is hereinafter called the "Registration Statement"; such prospectus in the form in which it appears in the Registration Statement is hereinafter called the "Base Prospectus"; and the supplemented form of prospectus, in the form in which it will be filed with the Commission pursuant to Rule 424(b) (including the Base Prospectus as so supplemented) is hereinafter called the "Prospectus Supplement." Any reference in this Agreement to the Registration Statement, the Base Prospectus or the Prospectus Supplement shall be deemed to refer to and include the documents incorporated by reference therein (the "Incorporated Documents") pursuant to Item 12 of Form S-3 which were filed under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), on or before the date of this Agreement, or the issue date of the Base Prospectus or the Prospectus Supplement, as the case may be; and any reference in this Agreement to the terms "amend," "amendment" or "supplement" with respect to the Registration Statement, the Base Prospectus or the Prospectus Supplement shall be deemed to refer to and include the filing of any document under the Exchange Act after the date of this Agreement, or the issue date of the Base Prospectus or the Prospectus Supplement, as the case may be, deemed to be incorporated therein by reference. All references in this Agreement to financial statements and schedules and other information which is "contained," "included," "described," "referenced," "set forth" or "stated" in the Registration Statement, the Base Prospectus or the Prospectus Supplement (and all other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information which is or is deemed to be incorporated by reference in the Registration Statement, the Base Prospectus or the Prospectus Supplement, as the case may be. No stop order suspending the effectiveness of the Registration Statement or the use of the Base Prospectus or the Prospectus Supplement has been issued, and no proceeding for any such purpose is pending or has been initiated or, to the Company's knowledge, is threatened by the Commission. For purposes of this Agreement, "free writing prospectus" has the meaning set forth in Rule 405 under the Securities Act and the "Time of Sale Prospectus" means the preliminary prospectus, if any, together with the free writing prospectuses, if any, used in connection with the Placement, including any documents incorporated by reference therein.



(B) The Registration Statement (and any further documents to be filed with the Commission) contains all exhibits and schedules as required by the Securities Act. Each of the Registration Statement and any post-effective amendment thereto, at the time it became effective, complied in all material respects with the Securities Act and the Exchange Act and the applicable Rules and Regulations and did not and, as amended or supplemented, if applicable, will not, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Base Prospectus, the Time of Sale Prospectus, if any, and the Prospectus Supplement, each as of its respective date, comply in all material respects with the Securities Act and the Exchange Act and the applicable Rules and Regulations. Each of the Base Prospectus, the Time of Sale Prospectus, if any, and the Prospectus Supplement, as amended or supplemented, did not and will not contain as of the date thereof any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The Incorporated Documents, when they were filed with the Commission, conformed in all material respects to the requirements of the Exchange Act and the applicable Rules and Regulations, and none of such documents, when they were filed with the Commission, contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein (with respect to Incorporated Documents incorporated by reference in the Base Prospectus or Prospectus Supplement), in light of the circumstances under which they were made not misleading; and any further documents so filed and incorporated by reference in the Base Prospectus, the Time of Sale Prospectus, if any, or Prospectus Supplement, when such documents are filed with the Commission, will conform in all material respects to the requirements of the Exchange Act and the applicable Rules and Regulations, as applicable, and will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. No post-effective amendment to the Registration Statement reflecting any facts or events arising after the date thereof which represent, individually or in the aggregate, a fundamental change in the information set forth therein is required to be filed with the Commission. There are no documents required to be filed with the Commission in connection with the transaction contemplated hereby that (x) have not been filed as required pursuant to the Securities Act or (y) will not be filed within the requisite time period. There are no contracts or other documents required to be described in the Base Prospectus, the Time of Sale Prospectus, if any, or Prospectus Supplement, or to be filed as exhibits or schedules to the Registration Statement, which have not been described or filed as required.

(C) The Company is eligible to use free writing prospectuses in connection with the Placement pursuant to Rules 164 and 433 under the Securities Act. Any free writing prospectus that the Company is required to file pursuant to Rule 433(d) under the Securities Act has been, or will be, filed with the Commission in accordance with the requirements of the Securities Act and the applicable rules and regulations of the Commission thereunder. Each free writing prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act or that was prepared by or behalf of or used by the Company complies or will comply in all material respects with the requirements of the Securities Act and the applicable rules and regulations of the Commission thereunder. The Company will not, without the prior consent of the Placement Agent, prepare, use or refer to, any free writing prospectus.

(D) The Company has delivered, or will as promptly as practicable deliver, to the Placement Agent complete conformed copies of the Registration Statement and of each consent and certificate of experts, as applicable, filed as a part thereof, and conformed copies of the Registration Statement (without exhibits), the Base Prospectus, the Time of Sale Prospectus, if any, and the Prospectus Supplement, as amended or supplemented, in such quantities and at such places as the Placement Agent reasonably requests. Neither the Company nor any of its directors and officers has distributed and none of them will distribute, prior to the Closing Date, any offering material in connection with the offering and sale of the Securities other than the Base Prospectus, the Time of Sale Prospectus, if any, the Prospectus

Supplement, the Registration Statement, copies of the documents incorporated by reference therein and any other materials permitted by the Securities Act.

In the event that a Direct Placement occurs off a registration statement other than the Registration Statement, prior to the commencement of any such Placement, the Company shall make written representations, warranties and covenants to Rodman as to such subsequent registration statement (and other offering documents) that are substantially the same as the representations, warranties and covenants made under this Section 2, which representations, warranties and covenants shall be reasonably satisfactory to Rodman.

**SECTION 3. REPRESENTATIONS AND WARRANTIES.** Except as disclosed in the SEC Reports (as defined below) or the Registration Statement, the Base Prospectus or the Prospectus Supplement, the Company hereby makes the representations and warranties set forth below to the Placement Agent as of the date of the Placement, as of the date of the Purchase Agreement and as of the Closing Date.

(A) **Organization and Qualification.** All of the direct and indirect subsidiaries (individually, a “Subsidiary”) of the Company are set forth on Exhibit 21.1 to the Company’s Annual Report on Form 10-K, filed with the Commission on March 18, 2010. The Company owns, directly or indirectly, all of the capital stock or other equity interests of each Subsidiary free and clear of any “Liens” (which for purposes of this Agreement shall mean a lien, charge, security interest, encumbrance, right of first refusal, preemptive right or other restriction), and all the issued and outstanding shares of capital stock of each Subsidiary are validly issued and are fully paid, non-assessable and free of preemptive and similar rights to subscribe for or purchase securities. The Company and each of the Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization (as applicable), with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any Subsidiary is in violation or default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents. Each of the Company and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not reasonably be expected to result in (i) a material adverse effect on the legality, validity or enforceability of any Transaction Document, (ii) a material adverse change in the results of operations, assets, business, prospects or condition (financial or otherwise) of the Company and the Subsidiaries, taken as a whole, from that set forth or incorporated by reference in the Base Prospectus or the Prospectus Supplement, or (iii) a material adverse effect on the Company’s ability to perform in any material respect on a timely basis its obligations under any Transaction Document (any of (i), (ii) or (iii)), a “Material Adverse Effect”) and no “Proceeding” (which for purposes of this Agreement shall mean any action, claim, suit, investigation or proceeding (including, without limitation, an investigation or partial proceeding, such as a deposition), whether commenced or threatened) has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

(B) **Authorization; Enforcement.** The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by each of the Transaction Documents and otherwise to carry out its obligations thereunder. The execution and delivery of each of the Transaction Documents by the Company and the consummation by it of the transactions contemplated thereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company, its board of directors or its stockholders in connection therewith other than in connection with the “Required Approvals” (as defined in subsection 3(D) below). Each Transaction Document has been (or upon delivery will have been) duly executed by the Company and, when delivered in accordance with the terms hereof and thereof, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms except (i) as limited by general equitable principles and applicable

bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

(C) No Conflicts. The execution, delivery and performance of the Transaction Documents by the Company, the issuance and sale of the Securities and the consummation by the Company of the other transactions contemplated hereby and thereby do not and will not (i) conflict with or violate any provision of the Company's or any Subsidiary's certificate or articles of incorporation, bylaws or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien upon any of the properties or assets of the Company or any Subsidiary, or give to others any rights of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a Company or Subsidiary debt or otherwise) or other understanding to which the Company or any Subsidiary is a party or by which any property or asset of the Company or any Subsidiary is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company or a Subsidiary is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company or a Subsidiary is bound or affected; except in the case of each of clauses (ii) and (iii), such as could not reasonably be expected to result in a Material Adverse Effect.

(D) Filings, Consents and Approvals. The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other "Person" (defined as an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind, including, without limitation, any Trading Market) in connection with the execution, delivery and performance by the Company of the Transaction Documents, other than (i) the filings required by the Purchase Agreement, (ii) the filing with the Commission of the Prospectus Supplement, (iii) the filing of application(s) to and approval by the NYSE Amex LLC for the listing of the Common Stock underlying the Securities for trading thereon in the time and manner required thereby, (iv) the filing with the Secretary of State of the State of Delaware of the Certificate of Designation with respect to the Securities, as applicable, and (v) such filings as are required to be made under applicable state securities laws and the rules and regulations of the Financial Industry Regulatory Authority (FINRA) (collectively, the "Required Approvals").

(E) Issuance of the Securities; Registration. The Securities are duly authorized and, when issued and paid for in accordance with the applicable Transaction Documents, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company other than restrictions on transfer provided for in the Transaction Documents. The Company has reserved from its duly authorized capital stock the maximum number of shares of Common Stock issuable pursuant to the Transaction Documents on the date the Purchase Agreement is signed and as of the Closing Date. The issuance by the Company of the Securities has been registered under the Securities Act and all of the Securities are freely transferable and tradable by the purchasers thereof without restriction (other than any restrictions arising solely from an act or omission of such a purchaser). The Securities are being issued pursuant to the Registration Statement and the issuance of the Securities has been registered by the Company under the Securities Act. The Registration Statement is effective and available for the issuance of the Securities thereunder and the Company has not received any notice that the Commission has issued or intends to issue a stop-order with respect to the Registration Statement or that the Commission otherwise has suspended or withdrawn the effectiveness of the Registration Statement, either temporarily or permanently, or intends or has threatened in writing to do so. The "Plan of Distribution" section under the Registration Statement permits the issuance and sale of the Securities as contemplated by the Purchase Agreement. Upon receipt of the Securities, such purchasers will have good and marketable title to such Securities and the Common Stock underlying the Securities will be

freely tradable on the "Trading Market" (which, for purposes of this Agreement shall mean means the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq Capital Market, the NYSE Amex, the New York Stock Exchange, the Nasdaq National Market or the OTC Bulletin Board).

(F) Capitalization. The capitalization of the Company is as set forth in the Base Prospectus and Prospectus Supplement. The Company has not issued any capital stock since its most recently filed periodic report under the Exchange Act, other than pursuant to the exercise of employee stock options under the Company's stock option plans, the issuance of shares of Common Stock to employees pursuant to the Company's employee stock purchase plan and pursuant to the conversion or exercise of securities exercisable, exchangeable or convertible into Common Stock ("Common Stock Equivalents"). No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. Except (i) as a result of the purchase and sale of the Securities, (ii) pursuant to the Company's stock option plans, (iii) pursuant to agreements or instruments (including that certain Rights Agreement, dated July 27, 2005, as amended (the "Rights Agreement")) filed as exhibits to SEC Reports incorporated by reference into the Prospectus Supplement, there are no outstanding options, warrants, script rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock, or contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to issue additional shares of Common Stock or Common Stock Equivalents. The issuance and sale of the Securities will not obligate the Company to issue shares of Common Stock or other securities to any Person (other than the purchasers a party to the Purchase Agreement) and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under such securities. All of the outstanding shares of capital stock of the Company are validly issued, fully paid and nonassessable, have been issued in compliance with all federal and state securities laws, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. Except for the Required Approvals, no further approval or authorization of any stockholder, the Board of Directors of the Company or others is required for the issuance and sale of the Securities. Other than the Rights Agreement, there are no stockholders agreements, voting agreements or other similar agreements with respect to the Company's capital stock to which the Company is a party or, to the knowledge of the Company, between or among any of the Company's stockholders.

(G) SEC Reports; Financial Statements. The Company has complied in all material respects with requirements to file all reports, schedules, forms, statements and other documents required to be filed by it under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the two years preceding the date hereof (or such shorter period as the Company was required by law to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, being collectively referred to herein as the "SEC Reports") on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act and the rules and regulations of the Commission promulgated thereunder, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The 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 or as amended or corrected in a subsequent SEC Report. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved ("GAAP"), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its

consolidated subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments.

(H) Material Changes; Undisclosed Events, Liabilities or Developments. Since the date of the latest audited financial statements included within the SEC Reports, except as specifically disclosed in a subsequent SEC Report filed prior to the date hereof, (i) there has been no event, occurrence or development that has had or that could reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not incurred any liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company's financial statements pursuant to GAAP or required to be disclosed in filings made with the Commission, (iii) the Company has not altered its method of accounting, (iv) except in connection with the Company's 5% Series B Convertible Preferred Stock, 5% Series C Convertible Preferred Stock, 4.25660% Series D Convertible Preferred Stock, 3.73344597664961% Series E Convertible Preferred Stock and 2.19446320054018% Series F Convertible Preferred Stock, the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock and (v) the Company has not issued any equity securities to any officer, director or "Affiliate" (defined as any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 144 under the Securities Act), except pursuant to existing Company stock option plans. The Company does not have pending before the Commission any request for confidential treatment of information. Except for the issuance of the Securities contemplated by the Purchase Agreement, no event, liability or development has occurred or exists with respect to the Company or its Subsidiaries or their respective business, properties, operations or financial condition, that would be required to be disclosed by the Company under applicable securities laws at the time this representation is deemed made that has not been publicly disclosed at least 1 Trading Day prior to the date that this representation is deemed made.

(I) Litigation. There is no action, suit, inquiry, notice of violation, Proceeding or investigation pending or, to the knowledge of the Company, threatened against or affecting the Company, any Subsidiary or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an "Action") which (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Securities or (ii) could, if there were an unfavorable decision, reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any Subsidiary, nor, to the knowledge of the Company, any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any Subsidiary under the Exchange Act or the Securities Act. None of the Company's or its Subsidiaries' employees is a member of a union that relates to such employee's relationship with the Company, and neither the Company nor any of its Subsidiaries is a party to a collective bargaining agreement, and the Company and its Subsidiaries believe that their relationships with their employees are good. No executive officer, to the knowledge of the Company, is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement or non-competition agreement, or any other contract or agreement or any restrictive covenant, and the continued employment of each such executive officer does not subject the Company or any of its Subsidiaries to any liability with respect to any of the foregoing matters. The Company and its Subsidiaries are in compliance with all U.S. federal, state, local and foreign laws and regulations relating to employment and employment practices, terms and conditions of employment and wages and hours, except where the failure to be in

compliance could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(J) Labor Relations. No material labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company which could reasonably be expected to result in a Material Adverse Effect.

(K) Compliance. Neither the Company nor any Subsidiary (i) is in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company or any Subsidiary under), nor has the Company or any Subsidiary received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or any other agreement or instrument to which it is a party or by which it or any of its properties is bound (whether or not such default or violation has been waived), (ii) is in violation of any order of any court, arbitrator or governmental body, or (iii) is or has been in violation of any statute, rule or regulation of any governmental authority, including without limitation all foreign, federal, state and local laws relating to taxes, environmental protection, occupational health and safety, product quality and safety and employment and labor matters, except in each case as could not reasonably be expected to result in a Material Adverse Effect.

(L) Regulatory Permits. The Company and the Subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses as described in the SEC Reports, the Registration Statement, the Base Prospectus and the Prospectus Supplement, except where the failure to possess such permits could not reasonably be expected to result in a Material Adverse Effect ("Material Permits"), and neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any Material Permit. For clarity, the Company has not received the approval of any regulatory agency to market any of its product candidates.

(M) Title to Assets. The Company and the Subsidiaries have good and marketable title in fee simple to all real property owned by them that is material to the business of the Company and the Subsidiaries and good and marketable title in all personal property owned by them that is material to the business of the Company and the Subsidiaries, in each case free and clear of all Liens, except for Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and the Subsidiaries and Liens for the payment of federal, state or other taxes, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company and the Subsidiaries are held by them under valid, subsisting and enforceable leases of which the Company and the Subsidiaries are in compliance, except where such non-compliance would not reasonably be expected to have a Material Adverse Effect.

(N) Patents and Trademarks. The Company and the Subsidiaries have, or have rights to use, all patents, patent applications, trademarks, trademark applications, service marks, trade names, trade secrets, inventions, copyrights, licenses and other similar intellectual property rights necessary or material for use in connection with their respective businesses as described in the SEC Reports, the Registration Statement, the Base Prospectus and the Prospectus Supplement and which the failure to so have could reasonably be expected to have a Material Adverse Effect (collectively, the "Intellectual Property Rights"). Neither the Company nor any Subsidiary has received, since the date of the latest audited financial statements included within the SEC Reports, a notice (written or otherwise) that the Intellectual Property Rights violate or infringe upon the rights of any Person, except as would not have a Material Adverse Effect. To the knowledge of the Company, all such Intellectual Property Rights are enforceable (other than patent and trademark applications) and there is no existing infringement by another Person of any of the Intellectual Property Rights. The Company and its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their intellectual properties, except where failure to do so could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(O) Insurance. The Company and the Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary for companies of similar size as the Company in the businesses in which the Company and the Subsidiaries are engaged, including, but not limited to, directors and officers insurance coverage. To the knowledge of the Company, such insurance contracts and policies are accurate and complete. Neither the Company nor any Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business without a significant increase in cost.

(P) Transactions With Affiliates and Employees. Except as set forth in the SEC Reports, the Registration Statement, the Base Prospectus or the Prospectus Supplement, none of the officers or directors of the Company and, to the knowledge of the Company, none of the employees of the Company is presently a party to any transaction with the Company or any Subsidiary (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee or partner, in each case in excess of \$120,000, other than (i) for payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company and (iii) for other employee benefits, including stock option agreements under any stock option plan of the Company.

(Q) Sarbanes-Oxley. Except as disclosed in the SEC Reports, the Registration Statement, the Base Prospectus or the Prospectus Supplement, the Company is in material compliance with all provisions of the Sarbanes-Oxley Act of 2002 which are applicable to it as of the date the Purchase Agreement is signed and of the Closing Date.

(R) Certain Fees. Except as otherwise provided in this Agreement, no brokerage or finder's fees or commissions are or will be payable by the Company to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. The investors in the Placement shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section that may be due in connection with the transactions contemplated by the Transaction Documents.

(S) Trading Market Rules. The issuance and sale of the Securities under the Purchase Agreement does not contravene the rules and regulations of the Trading Market.

(T) Investment Company. The Company is not, and is not an Affiliate of, and immediately after receipt of payment for the Securities, will not be or be an Affiliate of, an "investment company" within the meaning of the Investment Company Act of 1940, as amended. The Company currently intends to conduct its business in a manner so that it will not become subject to the Investment Company Act.

(U) Registration Rights. No Person has any right to cause the Company to effect the registration under the Securities Act of any securities of the Company.

(V) Listing and Maintenance Requirements. The Common Stock is registered pursuant to Section 12(b) or 12(g) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. Except as disclosed in the SEC Reports, the Registration Statement, the Base Prospectus or the Prospectus Supplement, the Company has not, in the 12 months preceding the date hereof, received notice from any Trading Market on which the Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market.

(W) Application of Takeover Protections. Except as set forth in the Registration Statement, the Base Prospectus or the Prospectus Supplement, the Company and its Board of Directors have taken all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Company's Certificate of Incorporation (or similar charter documents) or the laws of its state of incorporation that is or could become applicable to the purchasers in the Placement as a result such purchasers and the Company fulfilling their obligations or exercising their rights under the Transaction Documents, including without limitation as a result of the Company's issuance of the Securities and such purchasers' ownership of the Securities.

(X) Solvency. Based on the financial condition of the Company as of the Closing Date after giving effect to the receipt by the Company of the proceeds from the sale of the Securities pursuant to the Purchase Agreement, (i) the Company's fair saleable value of its assets exceeds the amount that will be required to be paid on or in respect of the Company's existing debts and other liabilities (including known contingent liabilities) as they mature and (ii) the current cash flow of the Company, together with the proceeds the Company would receive, were it to liquidate all of its assets, after taking into account all anticipated uses of the cash, would be sufficient to pay all amounts on or in respect of its debt when such amounts are required to be paid. Within one year of the Closing Date, the Company does not intend to incur debts beyond its ability to pay such debts as they mature (taking into account the timing and amounts of cash to be payable on or in respect of its debt). The SEC Reports set forth as of the dates thereof all outstanding secured and unsecured Indebtedness of the Company or any Subsidiary, or for which the Company or any Subsidiary has commitments. For the purposes of this Agreement, "Indebtedness" shall mean (a) any liabilities for borrowed money or amounts owed in excess of \$50,000 (other than accrued liabilities and trade accounts payable incurred in the ordinary course of business), (b) all guaranties, endorsements and other contingent obligations in respect of indebtedness of others, whether or not the same are or should be reflected in the Company's balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (c) the present value of any lease payments in excess of \$50,000 due under leases required to be capitalized in accordance with GAAP. Neither the Company nor any Subsidiary is in default with respect to any Indebtedness.

(Y) Tax Status. Except for matters that would not, individually or in the aggregate, have or reasonably be expected to result in a Material Adverse Effect, the Company and each Subsidiary has filed all necessary federal, state and foreign income and franchise tax returns and has paid or accrued all taxes shown as due thereon, and the Company has no knowledge of a tax deficiency which has been asserted or threatened against the Company or any Subsidiary.

(Z) Foreign Corrupt Practices. Neither the Company, nor to the knowledge of the Company, any agent or other person acting on behalf of the Company, has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company (or made by any person acting on its behalf of which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of the Foreign Corrupt Practices Act of 1977, as amended.

(AA) Accountants. The Company's accountants are J.H. Cohn LLP. To the knowledge of the Company, such accountants, who the Company expects will express their opinion with respect to the financial statements to be included in the Company's next Annual Report on Form 10-K, which opinion may include a "going concern" qualification, are a registered public accounting firm as required by the Securities Act.

(BB) Regulation M Compliance. The Company has not, and to its knowledge no one acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or



manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Securities, (ii) sold, bid for, purchased, or paid any compensation for soliciting purchases of, any of the Securities or (iii) paid or agreed to pay to any person any compensation for soliciting another to purchase any other securities of the Company, other than, in the case of clauses (ii) and (iii), compensation paid to the Placement Agent in connection with the placement of the Securities.

(CC) Approvals. The issuance and listing on the NYSE Amex of the Common Stock underlying the Securities requires no further approvals, including but not limited to, the approval of shareholders, other than the filing of application(s) to and approval by the NYSE Amex for the listing of the Common Stock underlying the Securities for trading thereon in the time and manner required thereby.

(DD) FINRA Affiliations. There are no affiliations with any FINRA member firm among the Company's officers, directors or, to the knowledge of the Company, any five percent (5%) or greater stockholder of the Company, except as set forth in the Registration Statement, the Base Prospectus or the Prospectus Supplement.

**SECTION 4. CLOSING.** The obligations of the Placement Agent and the purchasers in the Placement, and the closing of the sale of the Securities pursuant to the Purchase Agreement are subject to the accuracy, when made and on the Closing Date, of the representations and warranties on the part of the Company and its Subsidiaries contained herein, to the accuracy of the statements of the Company and its Subsidiaries made in any certificates pursuant to the provisions hereof, to the performance by the Company and its Subsidiaries of their obligations hereunder, and to each of the following additional terms and conditions:

(A) No stop order suspending the effectiveness of the Registration Statement shall have been issued and no proceedings for that purpose shall have been initiated or threatened by the Commission, and any request for additional information on the part of the Commission (to be included in the Registration Statement, the Base Prospectus or the Prospectus Supplement or otherwise) shall have been complied with to the reasonable satisfaction of the Placement Agent.

(B) The Placement Agent shall not have discovered and disclosed to the Company on or prior to the Closing Date that the Registration Statement, the Base Prospectus or the Prospectus Supplement or any amendment or supplement thereto contains an untrue statement of a fact which, in the opinion of counsel for the Placement Agent, is material or omits to state any fact which, in the opinion of such counsel, is material and is required to be stated therein or is necessary to make the statements therein not misleading.

(C) All corporate proceedings and other legal matters incident to the authorization, form, execution, delivery and validity of each of the Purchase Agreement, the Securities, the Registration Statement, the Base Prospectus and the Prospectus Supplement and all other legal matters relating to the Purchase Agreement and the transactions contemplated thereby shall be reasonably satisfactory in all material respects to counsel for the Placement Agent, and the Company shall have furnished to such counsel all documents and information that they may reasonably request to enable them to pass upon such matters.

(D) The Placement Agent shall have received from outside counsel to the Company such counsel's written opinion, addressed to the Placement Agent and the purchasers in the Placement dated as of the Closing Date, in form and substance reasonably satisfactory to the Placement Agent, which opinion shall include a "10b-5" representation from such counsel.

(E) Neither the Company nor any of its Subsidiaries shall have sustained since the date of the latest audited financial statements included or incorporated by reference in the Base Prospectus, any loss

or interference with its business from fire, explosion, flood, terrorist act or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth in or contemplated by the Base Prospectus and (ii) since such date, other than in connection with the conversion or exercise of securities outstanding as of such date and a reverse stock split, which was effective as of April 23, 2010, there shall not have been any change in the capital stock or long-term debt of the Company or any of its Subsidiaries or any change, or any development involving a prospective change, in or affecting the business, general affairs, management, financial position, stockholders' equity, results of operations or prospects of the Company and its Subsidiaries, otherwise than as set forth in or contemplated by the Base Prospectus, the effect of which, in any such case described in clause (i) or (ii), is, in the judgment of the Placement Agent, so material and adverse as to make it impracticable or inadvisable to proceed with the sale or delivery of the Securities on the terms and in the manner contemplated by the Base Prospectus, the Time of Sale Prospectus, if any, and the Prospectus Supplement.

(F) The Common Stock is registered under the Exchange Act and, as of the Closing Date, the Common Stock underlying the Securities shall be listed and admitted and authorized for trading on the NYSE Amex, and, upon request, satisfactory evidence of such actions shall have been provided to the Placement Agent. The Company shall have taken no action designed to, or likely to have the effect of terminating the registration of the Common Stock under the Exchange Act or delisting or suspending from trading the Common Stock from the NYSE Amex, nor has the Company received any information suggesting that the Commission or the NYSE Amex is contemplating terminating such registration or listing.

(G) Subsequent to the execution and delivery of the Purchase Agreement, there shall not have occurred any of the following: (i) trading in securities generally on the New York Stock Exchange, the Nasdaq National Market or the NYSE Amex or in the over-the-counter market, or trading in any securities of the Company on any exchange or in the over-the-counter market, shall have been suspended or minimum or maximum prices or maximum ranges for prices shall have been established on any such exchange or such market by the Commission, by such exchange or by any other regulatory body or governmental authority having jurisdiction, (ii) a banking moratorium shall have been declared by federal or state authorities or a material disruption has occurred in commercial banking or securities settlement or clearance services in the United States, (iii) the United States shall have become engaged in hostilities in which it is not currently engaged, the subject of an act of terrorism, there shall have been an escalation in hostilities involving the United States, or there shall have been a declaration of a national emergency or war by the United States, or (iv) there shall have occurred any other calamity or crisis or any change in general economic, political or financial conditions in the United States or elsewhere, if the effect of any such event in clause (iii) or (iv) makes it, in the sole judgment of the Placement Agent, impracticable or inadvisable to proceed with the sale or delivery of the Securities on the terms and in the manner contemplated by the Base Prospectus, the Time of Sale Prospectus, if any, and the Prospectus Supplement.

(H) 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 or materially and adversely affect or potentially and adversely affect the business or operations of the Company; 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 or materially and adversely affect or potentially and adversely affect the business or operations of the Company.

(I) The Company shall have prepared and filed with the Commission a Current Report on Form 8-K with respect to the Placement, including as an exhibit thereto this Agreement.

(J) The Company shall have entered into a Purchase Agreement with each of the purchasers in the Placement and such agreements shall be in full force and effect and shall contain representations and warranties of the Company as agreed between the Company and such purchasers.

(K) FINRA shall have raised no objection to the fairness and reasonableness of the terms and arrangements of this Agreement. In addition, the Company shall, if requested by the Placement Agent, make or authorize Placement Agent's counsel to make on the Company's behalf, an Issuer Filing with FINRA pursuant to FINRA Rule 5110 with respect to the Registration Statement and pay all filing fees required in connection therewith.

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

All opinions, 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 Agent.

**ADVENTRX PHARMACEUTICALS ANNOUNCES CAPITAL RAISE OF \$22.5 MILLION**

**SAN DIEGO — January 7, 2011** — ADVENTRX Pharmaceuticals, Inc. (NYSE Amex: ANX) announced today that it has entered into definitive agreements to sell 8,184,556 units in a registered direct offering to RA Capital Management, certain healthcare-focused investors, and other institutional investors for a per unit purchase price of \$2.75, representing gross proceeds to ADVENTRX of approximately \$22.5 million. Each unit consists of one share of common stock, a Series A warrant and a Series B warrant. ADVENTRX plans to use the net proceeds from the offering to fund activities relating to acquiring and developing additional products or product candidates, to continue development of its current lead product candidates, and for general corporate purposes.

The Series A warrants are exercisable for up to an aggregate of 2,046,139 shares of ADVENTRX's common stock. The Series A warrants will have an exercise price of \$2.75 per share and will be exercisable at any time after the closing of the transaction and before the date that is 5 trading days after the 1-year anniversary of the initial exercise date. The Series B warrants are exercisable for up to an aggregate of 2,046,139 shares of ADVENTRX's common stock. The Series B warrants also will have an exercise price of \$2.75 per share and will be exercisable at any time after the closing of the transaction and before the 5-year anniversary of the initial exercise date. The closing of the offering is expected to take place on or about January 11, 2011, subject to the satisfaction of customary closing conditions.

Rodman & Renshaw, LLC, a wholly owned subsidiary of Rodman & Renshaw Capital Group, Inc. (NasdaqGM: RODM), acted as the exclusive placement agent for the transaction.

The securities described above are being offered by ADVENTRX pursuant to an effective registration statement(s) on Form S-3 filed with the Securities and Exchange Commission ("SEC"). A prospectus supplement relating to the offering will be filed with the SEC.

This press release shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction. The securities may only be offered by means of a prospectus. Copies of the prospectus can be obtained from the SEC's website at [www.sec.gov](http://www.sec.gov) or directly from Rodman & Renshaw, LLC by request to [info@rodm.com](mailto:info@rodm.com) or (212) 356-0549.

**About ADVENTRX Pharmaceuticals**

ADVENTRX Pharmaceuticals is a specialty pharmaceutical company whose product candidates are being developed to improve the performance of existing anti-cancer drugs by addressing limitations associated principally with their safety and use. More information can be found on the Company's web site at [www.adventrx.com](http://www.adventrx.com).

**Forward Looking Statement**

ADVENTRX cautions you that statements included in this press release that are not a description of historical facts are forward-looking statements that are based on ADVENTRX's current expectations and assumptions. Such forward-looking statements include, but are not limited to, statements regarding capital-raising and use of proceeds. Actual events or results may differ materially from those expressed or implied by the forward-looking statements in this press release due to a number of risks and uncertainties, including, without limitation: the extent to which ADVENTRX acquires new technologies, product candidates, products or businesses and its ability to integrate them successfully into its operations; ADVENTRX's or a future partner's ability to obtain regulatory approval for its current and future product candidates and, if approved, to successfully commercialize them in the U.S. and/or elsewhere; the potential that ADVENTRX may enter into one or more commercial partnerships or other strategic transactions relating to ANX-530 and/or ANX-514, and the terms of any such transactions; the satisfactory performance of third parties on whom ADVENTRX relies significantly to conduct its nonclinical testing and bioequivalence and clinical trials and other aspects of its development programs; the

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extent to which ADVENTRX rebuilds its workforce and its ability to attract and retain qualified personnel and manage growth; delays in the commencement or completion of nonclinical testing, bioequivalence or clinical trials of or manufacturing, regulatory or launch activities related to ADVENTRX's current or future product candidates; the success of future bioequivalence or clinical trials; ADVENTRX's ability to acquire or develop sales, marketing and distribution capabilities, if it determines to commercialize any of its current or future product candidates for which it obtains regulatory approval without a partner; whether any of ADVENTRX's current or future product candidates for which it receives regulatory approval, if any, achieve broad market acceptance; and other risks and uncertainties more fully described in ADVENTRX's press releases and periodic filings with the Securities and Exchange Commission. ADVENTRX's public filings with the Securities and Exchange Commission are available at [www.sec.gov](http://www.sec.gov).

You are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date when made. ADVENTRX does not intend to revise or update any forward-looking statement set forth in this press release to reflect events or circumstances arising after the date hereof, except as may be required by law.

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