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): July 21, 2009

ADVENTRX Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware	001-32157	84-1318182
(State or other jurisdiction of incorporation)	(Commission File Number)	(I.R.S. Employer Identification No.)
6725 Mesa Ridge Road, Suite 100, San Diego, California		92121
(Address of principal executive offices)		(Zip Code)

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

Not Applicable

Former name or former address, if changed since last report

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

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

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Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On July 21, 2009, the Compensation Committee (the "Committee") of the Board of Directors (the "Board") of ADVENTRX Pharmaceuticals, Inc. (the "Company") approved base salary increases for 2009 (retroactive to January 1, 2009) for the Company's remaining employees, who are also named executive officers (as identified in the Company's proxy statement relating to the Company's 2009 annual meeting of stockholders) (the "NEOs"), approved stock option awards under the Company's 2008 Omnibus Incentive Plan (the "Plan") for the NEOs, adopted an incentive plan for the remainder of 2009 (including target awards for the NEOs and corporate performance goals) and adopted a retention and severance plan.

The following table sets forth the existing base salary for each of the NEOs, which have been in effect since January 1, 2008, the base salary for each of the NEOs for 2009 and the number of shares underlying the options granted to the NEOs:

Name/Title/Existing Salary/2009 Base Salary/No. of Shares Underlying Option Award

Brian M. Culley/Chief Business Officer and Senior Vice President/$262,500/$315,000/1,700,000

Patrick L. Keran/General Counsel, Secretary and Vice President, Legal/$231,000/289,000/1,700,000

Each of the stock options granted to the NEOs has an exercise price of $0.13 per share, which was the closing price of the Company's common stock on July 21, 2009 (the "Grant Date"), and vests and becomes exercisable as to 25% of the shares underlying each stock option on each of January 1, 2010, January 1, 2011, January 1, 2012 and January 1, 2013, with each vesting event subject to the respective NEO's continuous service (as defined in the Plan). However, in the event the NEO ceases to provide services to the Company as an employee by reason of an "involuntary termination" (as defined below), exercisability of the then-vested portion of the applicable stock option shall be extended such that the option shall be exercisable for a period of 12 months from the date of such involuntary termination. In addition, the vesting and/or exercisability of each option will accelerate or be extended under certain circumstances, including, (i) in the event of a change in control (as defined in the Plan), acceleration with respect to fifty percent of the then unvested shares on the day prior to the date of the change in control and, subject to the respective NEO's continuous service, with respect to the remaining fifty percent of the then unvested shares on the one year anniversary of the date of the change in control, (ii) subject to the preceding clause (i), in the event of a change of control, to the extent the successor company (or a subsidiary or parent thereof) does not assume or substitute for the option, acceleration in full on the day prior to the date of the change in control if the NEO is then providing services or was the subject an involuntary termination in connection with, related to or in contemplation of the change in control and exercisability for a period of 24 months from the date of such involuntary termination, and (iii) subject to the preceding clause (i), in the event of a change of control, to the extent the successor company (or a subsidiary or parent thereof) assumes or substitutes for the option, and in the event of an involuntary termination of the NEO within 12 months following the date of the change in control, acceleration in full and exercisability for a period of 24 months from the date of such involuntary termination.

Pursuant to the incentive plan for the remainder of 2009 adopted by the Committee (the "2009 Mid-Year Incentive Plan"), the NEOs are eligible for incentive awards based upon the achievement of corporate performance objectives in effect at the end of 2009. Awards under the 2009 Mid-Year Incentive Plan generally will be paid in cash; however, the Committee has discretion to determine the composition of each award. The potential award of each of the NEOs will be based 100% on the Companyâ 9;s achievement of corporate objectives and the target award amount for each NEO is $150,000. The target amount of each award may be increased or decreased by multiplying the NEO's target amount by a corporate performance multiplier, as will be determined by the Committee in the first quarter of 2010. Award multipliers will range from zero to 1.5. Payment of any awards under the 2009 Mid-Year Incentive Plan will be made after December 31, 2009 and on or before March 14, 2010. If an NEO's employment with the Company terminates prior to payment of an award, it will be at the sole discretion of the Committee whether or not any award payment is made to that NEO.

The corporate performance goals under the 2009 Mid-Year Incentive Plan were set by the Committee based on recommendations from the NEOs and reflect the Committee's assessment, as of July 21, 2009, of near-term corporate objectives that will enhance stockholder value. As of July 21, 2009, the corporate performance object ives consisted of four equally-weighted goals involving the successful completion of bioequivalence data analysis, acceptance of regulatory documents by the U.S. Food and Drug Administration, acceptance by the NYSE Amex of a plan to regain compliance with applicable listing criteria and maintenance of specified levels of working capital at December 31, 2009.

Under the 2009 Mid-Year Incentive Plan, if a corporate objective becomes irrelevant or undesirable or if a strategic change or other event affects the objective, the Committee, after considering the recommendations of the NEOs, may adjust the weighting of all objectives, substitute a new objective, eliminate the affected objective, take no action or effect any combination of the foregoing. In addition, subject to contractual obligations, the Committee has absolute discretion to abolish the 2009 Mid-Year Incentive Plan at any time or to alter any terms and conditions under which incentive awards will be paid, with or without cause and with or wi thout prior notice.

Under the retention and incentive plan (the "Retention Plan"), if an NEO's employment with the Company terminates at any time as a result of an "involuntary termination" (as defined below), and such NEO delivers and does not revoke a general release of claims, which will also confirm any post-termination obligations and/or restrictions applicable to such NEO (the "Release"), such NEO will be entitled to the following severance benefits: (i) an amount equal to twelve (12) months of such NEO's then-current base salary, less applicable withholdings and (ii) an amount equal to the estimated cost of continuing such NEO's health care coverage and the coverage of such NEO's dependents who are covered at the time of the involuntary termination under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, for a period equal to twelve (12) months. The foregoing severance benefits will be paid in a lump-sum on the date the Release becomes effecti ve.

For purposes of the stock option awards and the Retention Plan, "involuntary termination" means (i) without the NEO's express written consent, a Board action or external events causing or immediately portending a material reduction or alteration of the NEO's duties, position or responsibilities relative to the NEO's duties, position or responsibilities in effect immediately prior to such reduction or alteration, or the removal of the NEO from such position, duties or responsibilities; provided, however, that an "Involuntary Termination" shall not be deemed to occur (A) with respect to Brian M. Culley, if Mr. Culley remains the head of and most senior individual within the Company's (or its successor's) business development function and (B) with respect to Patrick L. Keran, if Mr. Keran remains the head of and most senior individual within the Company's (or its successor's) legal function; (ii) without the NEO's express written consent, a ma terial reduction by the Company of the NEO's base salary as in effect immediately prior to such reduction; (iii) without the NEO's express written consent, the relocation of the NEO's principal place of employment with the Company by more than fifty (50) miles; (iv) any termination of the NEO by the Company without "cause" (as defined below); or (vi) with respect to the Retention Plan only, a material breach of the Retention Plan, including, but not limited to the failure of the Company to obtain the assumption of the Retention Plan by any successors as contemplated in the Retention Plan. For purposes of the stock option awards and the Retention Plan, "cause" means (i) any act of personal dishonesty taken by the NEO in connection with his or her responsibilities as an employee which is

intended to result in substantial personal enrichment of the NEO; (ii) the NEO's conviction of a felony that the Board reasonably believes has had or will have a material detrimental effect on the Company's reputation or business; (iii) a willful act by the NEO that constitutes misconduct and is materially injurious to the Company, or (iv) continued willful violations by the NEO of the NEO's obligations to the Company after there has been delivered to the NEO a written demand for performance from the Company that describes the basis for the Company's belief that the NEO has not substantially performed his or her duties.

The descriptions of the provisions of the terms and conditions of the stock option awards, the 2009 Mid-Year Incentive Plan and the Retention Plan set forth above do not purport to be complete and are qualified in their entirety by reference to the form of Incentive Stock Option Grant Agreement with Mr. Culley, the form of Incentive Stock Option Grant Agreement with Mr. Keran, the 2009 Mid-Year Incentive Plan and the Retention Plan, which are filed herewith as Exhibits 10.1, 10.2, 10.3 and 10.4 and incorporated herein by reference.

In connection with the adoption of the compensation arrangements described above, the Company and each NEO agreed to terminate (i) those certain Retention and Incentive Agreements between the Company and each NEO, dated January 30, 2009, which provided for certain severance benefits in the event of an involuntary termination of employment before September 30, 2009 and (ii) the restricted stock units that were granted to each NEO on January 28, 2009, which units were to vest immediately prior to a strategic transaction (as defined in the relevant notice of grant).

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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SIGNATURES

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

ADVENTRX Pharmaceuticals, Inc.

July 22, 2009

By: /s/ Patrick L. Keran

Name: Patrick L. Keran
Title: Vice President, Legal

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Exhibit Index

Exhibit No.	Description
10.1	Form of Incentive Stock Option Grant Agreement for use in connection with July 2009 option grant to Brian M. Culley
10.2	Form of Incentive Stock Option Grant Agreement for use in connection with July 2009 option grant to Patrick L. Keran
10.3	2009 Mid-Year Incentive Plan
10.4	Retention and Severance Plan (as of July 21, 2009)

ADVENTRX Pharmaceuticals, Inc. 2008 Omnibus Incentive Plan

Incentive Stock Option Grant Agreement

THIS INCENTIVE STOCK OPTION GRANT AGREEMENT (this "Agreement"), effective as of July 21, 2009 (the "Grant Date"), is entered into by and between ADVENTRX Pharmaceuticals, Inc., a Delaware corporation (the "Company"), and Brian M. Culley (the "Grantee").

1. Grant of Option. The Company hereby grants to the Grantee a stock option (the "Option") to purchase 1,700,000 shares of common stock of the Company, par value $0.001 per share (the "Shares"), at the exercise price of $0.13 per Share (the "Exercise Price"). The Option is intended to qualify as an incentive stock option under Section 422 of the Code.

2. Subject to the Plan. This Agreement is subject to the provisions of the ADVENTRX Pharmaceuticals, Inc. 2008 Omnibus Incentive Plan (the "Plan"), and, unless the context requires otherwise, terms used herein shall have the same meaning as in the Plan. In the event of a conflict between the provisions of the Plan and this Agreement, the Plan shall control.

3. Term of Option. Unless the Option terminates earlier pursuant to the provisions of this Agreement, the Option shall expire on the tenth anniversary of the Grant Date.

4. Vesting. The Option shall become vested with respect to twenty-five percent (25%) of the Shares on each of January 1, 2010, January 1, 2011, January 1, 2012 and January 1, 2013; provided, however, that the Grantee is then providing Services.

5. Exercise of Option

(a) Manner of Exercise. To the extent vested, the Option may be exercised, in whole or in part, by delivering written notice to the Company in accordance with paragraph (g) of Section 8 in such form as the Company may require from time to time. Such notice shall specify the number of Shares subject to the Option as to which the Option is being exercised, and shall be accompanied by full payment of the Exercise Price of such Shares in a manner permitted under the terms of Section 5.5 of the Plan, except that payment with previously acquired Shares may only be made with the consent of the Committee. The Option may be exercised only in multiples of whole Shares and no fractional Shares shall be issued.

(b) Issuance of Shares. Upon exercise of the Option and payment of the Exercise Price for the Shares as to which the Option is exercised, the Company shall issue to the Grantee the applicable number of Shares in the form of fully paid and nonassessable Shares.

(c) Capitalization Adjustments. The number of Shares subject to the Option and the Exercise Price shall be equitably and appropriately adjusted, if applicable, as provided in Section 12.2 of the Plan.

(d) Withholding. No Shares will be issued on exercise of the Option unless and until the Grantee pays to the Company, or makes satisfactory arrangements with the Company for payment of, any federal, state or local taxes required by law to be withheld in respect of the exercise of the Option. The Grantee hereby agrees that the Company may withhold from the Optionee's wages or other remuneration the applicable taxes. At the discretion of the Company, the applicable taxes may be withheld in kind from the Shares otherwise deliverable to the Grantee on exercise of the Option, up to the Grantee's minimum required withholding rate or such other rate that will not trigger a negative accounting impact.

(e) Notice of Disposition. Grantee agrees to notify the Company in writing within fifteen (15) days after the date of any disposition of any of the Shares issued upon exercise of the Option that occurs within the later of two (2) years after the Grant Date or within one (1) year after such Shares are transferred to the Grantee.

6. Termination of Option

(a) Termination of Employment or Service Relationship Other Than Due to Retirement, Death, Disability, Involuntary Termination or Cause. Unless the Option has earlier terminated, the Option shall terminate in its entirety, regardless of whether the Option is vested, ninety (90) days after the date the Grantee ceases to provide Services for any reason other than, as applicable, the Grantee's Retirement, death, Disability, Involuntary Termination or termination for Cause. Except as provided in paragraphs (b), (c), (d) or (e) of this Section, any portion of the Option that is not vested at the time the Grantee ceases to provide Services shall immediately terminate.

(b) Retirement. Upon the Retirement of the Grantee, unless the Option has earlier terminated, the Option shall continue in effect (and, for purposes of vesting pursuant to Section 4, the Grantee shall be deemed to continue to be providing Services) until the earlier of (i) two (2) years after the Grantee's Retirement (or, if later, the fifth anniversary of the Grant Date) or (ii) the expiration of the Option's term pursuant to Section 3. For purposes of this Agreement, "Retirement" shall mean termination of the Grantee's employment with the Company and its Subsidiaries, or a successor company (or a subsidiary or parent thereof) and their respective subsidiaries, other than for Cause (a) if (i) the Grantee is then at least age 60 and (ii) the sum of the Grantee's age and years of continuous service with the Company and its Subsidiaries is then equal to at least 70 or (b) if the Committee characterizes such termination as a "Retirement" for purposes of this Agreement. For clarity, this Section 6(b) shall apply only to Grantees who are Employees at the time of termination.

(c) Death. Upon the Grantee's death, unless the Option has earlier terminated, the Grantee's executor or personal representative, the person to whom the Option shall have been transferred by will or the laws of descent and distribution, or such other permitted transferee, as the case may be, may exercise the Option in accordance with paragraph (a) of Section 5, to the extent vested, provided such exercise occurs within twelve (12) months after the date of the Grantee's death or by the end of the term of the Option pursuant to Section 3, whichever is earlier.

(d) Disability. In the event that the Grantee ceases to provide Services by reason of Disability, unless the Option has earlier terminated, the Option may be exercised, in accordance with paragraph (a) of Section 5, to the extent vested, provided such exercise occurs within six (6) months after the date of Disability or by the end of the term of the Option pursuant to Section 3, whichever is earlier. For purposes of this Agreement, "Disability" shall mean the Grantee's becoming disabled within the meaning of Section 22(e)(3) of the Code, or as otherwise

determined by the Committee in its discretion. The Committee may require such proof of Disability as the Committee in its sole and absolute discretion deems appropriate and the Committee's determination as to whether the Grantee has incurred a Disability shall be final and binding on all parties concerned.

(e) Involuntary Termination. In the event that the Grantee ceases to provide Services as an Employee by reason of an Involuntary Termination, unless the Option has earlier terminated, the Option may be exercised, in accordance with paragraph (a) of Section 5, to the extent vested as of such Involuntary Termination, provided such exercise occurs by the close of business on the last calendar day of the 12th full calendar month following the date of such Involuntary Termination. For purposes of this Agreement, "Involuntary Termination" shall mean: (i) without the Grantee's express written consent, an action by the Company's Board of Directors or external events causing or immediately portending a material reduction or alteration of the Grantee's duties, position or responsibilities relative to the Grantee's duties, position or responsibilities in effect immediately prior to such reduction or alteration, or the removal of the Grantee from such position, duties or responsibilities; provided, however, that an "Involuntary Termination" under this clause (e)(i) shall not be deemed to occur if the Grantee remains the head of and most senior individual within the Company's (or its successor's, or such successor's subsidiary's or parent's) business development function; (ii) without the Grantee's express written consent, a material reduction by the Company of the Grantee's base salary as in effect immediately prior to such reduction; (iii) without the Grantee's express written consent, the relocation of the Grantee's principal place of employment with the Company by more than fifty (50) miles; or (iv) any termination of the Grantee by the Company without Cause or as a result of the Retirement of the Grantee.

(f) Termination for Cause. Upon termination by the Company or a Subsidiary or a successor company (or a subsidiary or parent thereof) of the Grantee's employment or service relationship for Cause, unless the Option has earlier terminated, the Option shall immediately terminate in its entirety and shall thereafter not be exercisable to any extent whatsoever. For purposes of this Agreement, "Cause" shall mean (i) any act of personal dishonesty taken by the Grantee in connection with his or her responsibilities as an employee which is intended to result in substantial personal enrichment of the Grantee; (ii) Grantee's conviction of a felony that the Company's Board of Directors reasonably believes has had or will have a material detrimental effect on the Company's reputation or business; (iii) a willful act by the Grantee that constitutes misconduct and is materially injurious to the Company; or (iv) continued willful violations by the Grantee of the Grantee's obligations to the Company after there has been delivered to the Grantee a written demand for performance from the Company that describes the basis for the Company's belief that the Grantee has not substantially performed his or her duties.

(f) Automatic Extension of Exercise Period. Notwithstanding any provisions of paragraphs (a), (b), (c), (d) or (e) of this Section to the contrary, if exercise of the Option following termination of employment or service during the time period set forth in the applicable paragraph or sale during such period of the Shares acquired on exercise would violate any of the provisions of federal securities laws (or any Company policy related thereto), the time period to exercise the Option shall be extended until the later of (i) forty-five (45) days after the date that the exercise of the Option and sale of the Shares acquired on exercise would not be a violation of federal securities laws (or a related Company policy), or (ii) the end of the time period set forth in the applicable paragraph.

7. Change in Control.

(a) Effect on Option. In the event of a Change in Control, unless the Option has earlier terminated, the Option shall vest and become exercisable with respect to fifty percent (50%) of the then unvested Shares on the day prior to the date of the Change in Control and shall vest and become exercisable with respect to the remaining fifty percent (50%) of the then unvested Shares on the one (1) year anniversary of the Change in Control; provided, however, that the Grantee is then providing Services.

(b) Assumption or Substitution. Subject to paragraph (a) of this Section 7, in the event of a Change in Control, to the extent the successor company (or a subsidiary or parent thereof) does not assume or substitute for the Option on substantially the same terms and conditions (which may include settlement in the common stock of the successor company (or a subsidiary or parent thereof)), the Option (i) shall become fully vested and exercisable on the day prior to the date of the Change in Control if the Grantee (A) is then providing Services or (B) was the subject of an Involuntary Termination in connection with, related to or in contemplation of the Change in Control and (ii) may be exercised, in accordance with paragraph (a) of Section 5, provided such exercise occurs by the close of business on the last calendar day of the 24th full calendar month following the date of such Involuntary Termination.

(c) Tail. Subject to paragraph (a) of this Section 7, in the event of a Change in Control, to the extent the successor company (or a subsidiary or parent thereof) assumes or substitutes for the Option on substantially the same terms and conditions (which may include providing for settlement in the common stock of the successor company (or a subsidiary or parent thereof)), and in the event of an Involuntary Termination of the Grantee within 12 months following the date of the Change in Control, the Option shall become fully vested and exercisable, and may be exercised by the Grantee at any time until the close of business on the last calendar day of the 24th full calendar month following the date of such Involuntary Termination.

8. Miscellaneous.

(a) No Rights of Stockholder. The Grantee shall not have any of the rights of a stockholder with respect to the Shares subject to this Option until such Shares have been issued upon the due exercise of the Option.

(b) No Registration Rights; No Right to Settle in Cash. The Company has no obligation to register with any governmental body or organization (including, without limitation, the U.S. Securities and Exchange Commission ("SEC")) any of (a) the offer or issuance of any Award, (b) any Shares issuable upon the exercise of any Award, or (c) the sale of any Shares issued upon exercise of any Award, regardless of whether the Company in fact undertakes to register any of the foregoing. In particular, in the event that any of (x) any offer or issuance of any Award, (y) any Shares issuable upon exercise of any Award, or (z) the sale of any Shares issued upon exercise of any Award are not registered with any governmental body or organization (including, without limitation, the SEC), the Company will not under any circumstance be required to settle its obligations, if any, under this Plan in cash.

(c) Nontransferability of Option. The Option shall be nontransferable otherwise than by will or the laws of descent and distribution, and during the lifetime of the Grantee, the Option may be exercised only by the Grantee or, during the period the Grantee is under a legal disability,

by the Grantee's guardian or legal representative. Notwithstanding the foregoing, the Grantee may, by delivering written notice to the Company, in a form provided by or otherwise satisfactory to the Company, designate a third party who, in the event of the Grantee's death, shall thereafter be entitled to exercise the Option.

(d) Severability. If any provision of this Agreement shall be held unlawful or otherwise invalid or unenforceable in whole or in part by a court of competent jurisdiction, such provision shall (i) be deemed limited to the extent that such court of competent jurisdiction deems it lawful, valid and/or enforceable and as so limited shall remain in full force and effect, and (ii) not affect any other provision of this Agreement or part thereof, each of which shall remain in full force and effect.

(e) Governing Law. This Agreement shall be governed by, and interpreted in accordance with, the laws of the State of California, other than its conflict of laws principles.

(f) Headings. The headings in this Agreement are for reference purposes only and shall not affect the meaning or interpretation of this Agreement.

(g) Notices. All notices required or permitted under this Agreement shall be in writing and shall be sufficiently made or given if hand delivered or mailed by registered or certified mail, postage prepaid. Notice by mail shall be deemed delivered on the date on which it is postmarked.

Notices to the Company should be addressed to:

ADVENTRX Pharmaceuticals, Inc.

6725 Mesa Ridge Road, Suite 100

San Diego, CA 92121

Attention: Legal

Notice to the Grantee should be addressed to the Grantee at the Grantee's address as it appears on the records of the Company or a Subsidiary or a successor company (or a subsidiary or parent thereof).

The Company or the Grantee may by writing to the other party, designate a different address for notices. If the receiving party consents in advance, notice may be transmitted and received via facsimile or via such other electronic transmission mechanism as may be available to the parties. Such notices shall be deemed delivered when received.

(h) Agreement Not a Contract. This Agreement (and the grant of the Option) is not an employment or service contract, and nothing in the Option shall be deemed to create in any way whatsoever any obligation on Grantee's part to continue as an employee or director of or consultant to the Company or a Subsidiary or a successor company (or a subsidiary or parent thereof), or of the Company or a Subsidiary or a successor company (or a subsidiary or parent thereof) to continue Grantee's service as such an employee, director or consultant.

(i) Entire Agreement; Modification. This Agreement and the Plan contain the entire agreement between the parties with respect to the subject matter contained herein and may not be modified, except as provided in the Plan or in a written document signed by each of the parties hereto, and may be rescinded only by a written agreement signed by both parties.

IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the Grant Date.

ADVENTRX PHARMACEUTICALS, INC.

By:___

___

Grantee

ADVENTRX Pharmaceuticals, Inc. 2008 Omnibus Incentive Plan

Incentive Stock Option Grant Agreement

THIS INCENTIVE STOCK OPTION GRANT AGREEMENT (this "Agreement"), effective as of July 21, 2009 (the "Grant Date"), is entered into by and between ADVENTRX Pharmaceuticals, Inc., a Delaware corporation (the "Company"), and Patrick L. Keran (the "Grantee").

1. Grant of Option. The Company hereby grants to the Grantee a stock option (the "Option") to purchase 1,700,000 shares of common stock of the Company, par value $0.001 per share (the "Shares"), at the exercise price of $0.13 per Share (the "Exercise Price"). The Option is intended to qualify as an incentive stock option under Section 422 of the Code.

2. Subject to the Plan. This Agreement is subject to the provisions of the ADVENTRX Pharmaceuticals, Inc. 2008 Omnibus Incentive Plan (the "Plan"), and, unless the context requires otherwise, terms used herein shall have the same meaning as in the Plan. In the event of a conflict between the provisions of the Plan and this Agreement, the Plan shall control.

3. Term of Option. Unless the Option terminates earlier pursuant to the provisions of this Agreement, the Option shall expire on the tenth anniversary of the Grant Date.

4. Vesting. The Option shall become vested with respect to twenty-five percent (25%) of the Shares on each of January 1, 2010, January 1, 2011, January 1, 2012 and January 1, 2013; provided, however, that the Grantee is then providing Services.

5. Exercise of Option

(a) Manner of Exercise. To the extent vested, the Option may be exercised, in whole or in part, by delivering written notice to the Company in accordance with paragraph (g) of Section 8 in such form as the Company may require from time to time. Such notice shall specify the number of Shares subject to the Option as to which the Option is being exercised, and shall be accompanied by full payment of the Exercise Price of such Shares in a manner permitted under the terms of Section 5.5 of the Plan, except that payment with previously acquired Shares may only be made with the consent of the Committee. The Option may be exercised only in multiples of whole Shares and no fractional Shares shall be issued.

(b) Issuance of Shares. Upon exercise of the Option and payment of the Exercise Price for the Shares as to which the Option is exercised, the Company shall issue to the Grantee the applicable number of Shares in the form of fully paid and nonassessable Shares.

(c) Capitalization Adjustments. The number of Shares subject to the Option and the Exercise Price shall be equitably and appropriately adjusted, if applicable, as provided in Section 12.2 of the Plan.

(d) Withholding. No Shares will be issued on exercise of the Option unless and until the Grantee pays to the Company, or makes satisfactory arrangements with the Company for payment of, any federal, state or local taxes required by law to be withheld in respect of the exercise of the Option. The Grantee hereby agrees that the Company may withhold from the Optionee's wages or other remuneration the applicable taxes. At the discretion of the Company, the applicable taxes may be withheld in kind from the Shares otherwise deliverable to the Grantee on exercise of the Option, up to the Grantee's minimum required withholding rate or such other rate that will not trigger a negative accounting impact.

(e) Notice of Disposition. Grantee agrees to notify the Company in writing within fifteen (15) days after the date of any disposition of any of the Shares issued upon exercise of the Option that occurs within the later of two (2) years after the Grant Date or within one (1) year after such Shares are transferred to the Grantee.

6. Termination of Option

(a) Termination of Employment or Service Relationship Other Than Due to Retirement, Death, Disability, Involuntary Termination or Cause. Unless the Option has earlier terminated, the Option shall terminate in its entirety, regardless of whether the Option is vested, ninety (90) days after the date the Grantee ceases to provide Services for any reason other than, as applicable, the Grantee's Retirement, death, Disability, Involuntary Termination or termination for Cause. Except as provided in paragraphs (b), (c), (d) or (e) of this Section, any portion of the Option that is not vested at the time the Grantee ceases to provide Services shall immediately terminate.

(b) Retirement. Upon the Retirement of the Grantee, unless the Option has earlier terminated, the Option shall continue in effect (and, for purposes of vesting pursuant to Section 4, the Grantee shall be deemed to continue to be providing Services) until the earlier of (i) two (2) years after the Grantee's Retirement (or, if later, the fifth anniversary of the Grant Date) or (ii) the expiration of the Option's term pursuant to Section 3. For purposes of this Agreement, "Retirement" shall mean termination of the Grantee's employment with the Company and its Subsidiaries, or a successor company (or a subsidiary or parent thereof) and their respective subsidiaries, other than for Cause (a) if (i) the Grantee is then at least age 60 and (ii) the sum of the Grantee's age and years of continuous service with the Company and its Subsidiaries is then equal to at least 70 or (b) if the Committee characterizes such termination as a "Retirement" for purposes of this Agreement. For clarity, this Section 6(b) shall apply only to Grantees who are Employees at the time of termination.

(c) Death. Upon the Grantee's death, unless the Option has earlier terminated, the Grantee's executor or personal representative, the person to whom the Option shall have been transferred by will or the laws of descent and distribution, or such other permitted transferee, as the case may be, may exercise the Option in accordance with paragraph (a) of Section 5, to the extent vested, provided such exercise occurs within twelve (12) months after the date of the Grantee's death or by the end of the term of the Option pursuant to Section 3, whichever is earlier.

(d) Disability. In the event that the Grantee ceases to provide Services by reason of Disability, unless the Option has earlier terminated, the Option may be exercised, in accordance with paragraph (a) of Section 5, to the extent vested, provided such exercise occurs within six (6) months after the date of Disability or by the end of the term of the Option pursuant to Section 3, whichever is earlier. For purposes of this Agreement, "Disability" shall mean the Grantee's becoming disabled within the meaning of Section 22(e)(3) of the Code, or as otherwise

determined by the Committee in its discretion. The Committee may require such proof of Disability as the Committee in its sole and absolute discretion deems appropriate and the Committee's determination as to whether the Grantee has incurred a Disability shall be final and binding on all parties concerned.

(e) Involuntary Termination. In the event that the Grantee ceases to provide Services as an Employee by reason of an Involuntary Termination, unless the Option has earlier terminated, the Option may be exercised, in accordance with paragraph (a) of Section 5, to the extent vested as of such Involuntary Termination, provided such exercise occurs by the close of business on the last calendar day of the 12th full calendar month following the date of such Involuntary Termination. For purposes of this Agreement, "Involuntary Termination" shall mean: (i) without the Grantee's express written consent, an action by the Company's Board of Directors or external events causing or immediately portending a material reduction or alteration of the Grantee's duties, position or responsibilities relative to the Grantee's duties, position or responsibilities in effect immediately prior to such reduction or alteration, or the removal of the Grantee from such position, duties or responsibilities; provided, however, that an "Involuntary Termination" under this clause (e)(i) shall not be deemed to occur if the Grantee remains the head of and most senior individual within the Company's (or its successor's, or such successor's subsidiary's or parent's) legal function; (ii) without the Grantee's express written consent, a material reduction by the Company of the Grantee's base salary as in effect immediately prior to such reduction; (iii) without the Grantee's express written consent, the relocation of the Grantee's principal place of employment with the Company by more than fifty (50) miles; or (iv) any termination of the Grantee by the Company without Cause or as a result of the Retirement of the Grantee.

(f) Termination for Cause. Upon termination by the Company or a Subsidiary or a successor company (or a subsidiary or parent thereof) of the Grantee's employment or service relationship for Cause, unless the Option has earlier terminated, the Option shall immediately terminate in its entirety and shall thereafter not be exercisable to any extent whatsoever. For purposes of this Agreement, "Cause" shall mean (i) any act of personal dishonesty taken by the Grantee in connection with his or her responsibilities as an employee which is intended to result in substantial personal enrichment of the Grantee; (ii) Grantee's conviction of a felony that the Company's Board of Directors reasonably believes has had or will have a material detrimental effect on the Company's reputation or business; (iii) a willful act by the Grantee that constitutes misconduct and is materially injurious to the Company; or (iv) continued willful violations by the Grantee of the Grantee's obligations to the Company after there has been delivered to the Grantee a written demand for performance from the Company that describes the basis for the Company's belief that the Grantee has not substantially performed his or her duties.

(f) Automatic Extension of Exercise Period. Notwithstanding any provisions of paragraphs (a), (b), (c), (d) or (e) of this Section to the contrary, if exercise of the Option following termination of employment or service during the time period set forth in the applicable paragraph or sale during such period of the Shares acquired on exercise would violate any of the provisions of federal securities laws (or any Company policy related thereto), the time period to exercise the Option shall be extended until the later of (i) forty-five (45) days after the date that the exercise of the Option and sale of the Shares acquired on exercise would not be a violation of federal securities laws (or a related Company policy), or (ii) the end of the time period set forth in the applicable paragraph.

7. Change in Control.

(a) Effect on Option. In the event of a Change in Control, unless the Option has earlier terminated, the Option shall vest and become exercisable with respect to fifty percent (50%) of the then unvested Shares on the day prior to the date of the Change in Control and shall vest and become exercisable with respect to the remaining fifty percent (50%) of the then unvested Shares on the one (1) year anniversary of the Change in Control; provided, however, that the Grantee is then providing Services.

(b) Assumption or Substitution. Subject to paragraph (a) of this Section 7, in the event of a Change in Control, to the extent the successor company (or a subsidiary or parent thereof) does not assume or substitute for the Option on substantially the same terms and conditions (which may include settlement in the common stock of the successor company (or a subsidiary or parent thereof)), the Option (i) shall become fully vested and exercisable on the day prior to the date of the Change in Control if the Grantee (A) is then providing Services or (B) was the subject of an Involuntary Termination in connection with, related to or in contemplation of the Change in Control and (ii) may be exercised, in accordance with paragraph (a) of Section 5, provided such exercise occurs by the close of business on the last calendar day of the 24th full calendar month following the date of such Involuntary Termination.

(c) Tail. Subject to paragraph (a) of this Section 7, in the event of a Change in Control, to the extent the successor company (or a subsidiary or parent thereof) assumes or substitutes for the Option on substantially the same terms and conditions (which may include providing for settlement in the common stock of the successor company (or a subsidiary or parent thereof)), and in the event of an Involuntary Termination of the Grantee within 12 months following the date of the Change in Control, the Option shall become fully vested and exercisable, and may be exercised by the Grantee at any time until the close of business on the last calendar day of the 24th full calendar month following the date of such Involuntary Termination.

8. Miscellaneous.

(a) No Rights of Stockholder. The Grantee shall not have any of the rights of a stockholder with respect to the Shares subject to this Option until such Shares have been issued upon the due exercise of the Option.

(b) No Registration Rights; No Right to Settle in Cash. The Company has no obligation to register with any governmental body or organization (including, without limitation, the U.S. Securities and Exchange Commission ("SEC")) any of (a) the offer or issuance of any Award, (b) any Shares issuable upon the exercise of any Award, or (c) the sale of any Shares issued upon exercise of any Award, regardless of whether the Company in fact undertakes to register any of the foregoing. In particular, in the event that any of (x) any offer or issuance of any Award, (y) any Shares issuable upon exercise of any Award, or (z) the sale of any Shares issued upon exercise of any Award are not registered with any governmental body or organization (including, without limitation, the SEC), the Company will not under any circumstance be required to settle its obligations, if any, under this Plan in cash.

(c) Nontransferability of Option. The Option shall be nontransferable otherwise than by will or the laws of descent and distribution, and during the lifetime of the Grantee, the Option may be exercised only by the Grantee or, during the period the Grantee is under a legal disability,

by the Grantee's guardian or legal representative. Notwithstanding the foregoing, the Grantee may, by delivering written notice to the Company, in a form provided by or otherwise satisfactory to the Company, designate a third party who, in the event of the Grantee's death, shall thereafter be entitled to exercise the Option.

(d) Severability. If any provision of this Agreement shall be held unlawful or otherwise invalid or unenforceable in whole or in part by a court of competent jurisdiction, such provision shall (i) be deemed limited to the extent that such court of competent jurisdiction deems it lawful, valid and/or enforceable and as so limited shall remain in full force and effect, and (ii) not affect any other provision of this Agreement or part thereof, each of which shall remain in full force and effect.

(e) Governing Law. This Agreement shall be governed by, and interpreted in accordance with, the laws of the State of California, other than its conflict of laws principles.

(f) Headings. The headings in this Agreement are for reference purposes only and shall not affect the meaning or interpretation of this Agreement.

(g) Notices. All notices required or permitted under this Agreement shall be in writing and shall be sufficiently made or given if hand delivered or mailed by registered or certified mail, postage prepaid. Notice by mail shall be deemed delivered on the date on which it is postmarked.

Notices to the Company should be addressed to:

ADVENTRX Pharmaceuticals, Inc.

6725 Mesa Ridge Road, Suite 100

San Diego, CA 92121

Attention: Legal

Notice to the Grantee should be addressed to the Grantee at the Grantee's address as it appears on the records of the Company or a Subsidiary or a successor company (or a subsidiary or parent thereof).

The Company or the Grantee may by writing to the other party, designate a different address for notices. If the receiving party consents in advance, notice may be transmitted and received via facsimile or via such other electronic transmission mechanism as may be available to the parties. Such notices shall be deemed delivered when received.

(h) Agreement Not a Contract. This Agreement (and the grant of the Option) is not an employment or service contract, and nothing in the Option shall be deemed to create in any way whatsoever any obligation on Grantee's part to continue as an employee or director of or consultant to the Company or a Subsidiary or a successor company (or a subsidiary or parent thereof), or of the Company or a Subsidiary or a successor company (or a subsidiary or parent thereof) to continue Grantee's service as such an employee, director or consultant.

(i) Entire Agreement; Modification. This Agreement and the Plan contain the entire agreement between the parties with respect to the subject matter contained herein and may not be modified, except as provided in the Plan or in a written document signed by each of the parties hereto, and may be rescinded only by a written agreement signed by both parties.

IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the Grant Date.

ADVENTRX PHARMACEUTICALS, INC.

By:___

___

Grantee

2009 MID-YEAR INCENTIVE PLAN

This 2009 Mid-Year Incentive Plan (this "Plan") of ADVENTRX Pharmaceuticals, Inc. ("Adventrx" or the "Company") is designed to offer incentive compensation to certain employees of the Company (as described under the "Eligibility" section below ("Participants")), by rewarding the achievement of near-term corporate objectives.

Purpose of this Plan

This Plan is designed to:

- provide an incentive program to achieve near-term corporate objectives and thereby enhance stockholder value;
- reward key employees who significantly impact corporate results;
- incorporate an incentive program in Adventrx's overall compensation strategy to help attract and retain key employees; and
- incentivize Participants to remain employed by Adventrx throughout the plan period and until the time incentive awards are paid.

Plan Period

The plan period under this Plan is the period beginning June 30, 2009 and ending December 31, 2009.

Plan Governance

This Plan will be governed by the Compensation Committee (the "Committee") of the Board of Directors of the Company (the "Board"). The Committee will be responsible for determining and approving all awards to all Participants.

Eligibility

This Plan applies to Brian M. Culley and Patrick L. Keran.

Form of Incentive Award Payments

Incentive award payments generally will be made in cash, though the Committee has sole and absolute discretion to determine the composition of individual incentive award payments.

Corporate Objectives

This Plan calls for incentive awards based on the achievement of near-term corporate objectives by the Company. At the time of adoption of this Plan, the Committee will adopt corresponding near-term corporate objectives for the plan period, which objectives will be specific and measurable and individually weighted with respect to all corporate objectives.

If an approved corporate objective becomes irrelevant or undesirable during the plan period or if a strategic change or other event affects (one or more) objectives then, for each such affected objective, the Committee, after considering the recommendations of the Participants, may (i) adjust the weighting of all existing objectives to reflect an appropriate relative weighting in light of then-prevailing conditions, (ii) substitute a new objective with an appropriate weighting (and, if appropriate, adjust the weighting of existing objectives, regardless of whether the weighting of the new objective is other than the weighting of the substituted objective), (iii) eliminate the affected objective and re-weight all other objectives or (iv) take no action.

Incentive Award Targets

Incentive awards generally will consist of cash-based compensation.

The target amount of incentive awards will be $150,000.

Award Multipliers

A corporate "award multiplier" will be determined in the first quarter of 2010 and applied to Participants' target amounts to establish the actual payout amount of the incentive awards. A corporate award multiplier will be based on overall corporate performance against the corporate objectives in effect at the end of 2009 and will be the same for all Participants. Award multipliers may have the affect of increasing or decreasing a Participant's actual payout amount versus his target amount.

The corporate award multiplier will be determined by the Committee.

In determining the achievement of objectives and award multipliers, the Committee will consider the achievement of objectives, the degree to which an objective is partially achieved, the quality of achievement, the difficulty in achieving the objective, conditions that affected the ability to achieve objectives and such other factors as the Committee determines are appropriate to consider.

Award multipliers range from 0 to 1.50.

Payment of Incentive Awards

Notwithstanding any other provision of this Plan, each Participant's award, if any, will be paid in a single sum after December 31, 2009 and on or before March 14, 2010. Unless an exemption applies, this Plan and the awards paid pursuant to this Plan are intended to meet the requirements of Section 409A of the Internal Revenue Code of 1986, as amended.

Termination

Subject to contractual obligations, (a) any award payment provided for under this Plan is completely discretionary and is not considered earned by a Participant until it is actually paid. Continued employment until payment of the incentive award is required and (b) if the employment of a Participant is terminated (whether voluntarily or involuntarily) during the plan period, or prior to payment of awards, whether or not an award payment is made will be at the absolute discretion of the Committee.

Absolute Right to Alter or Abolish this Plan; Disputes

Subject to contractual obligations, the Committee reserves the right in its absolute discretion to abolish this Plan at any time or to alter the terms and conditions under which incentive awards will be paid, with or without cause and with or without prior notice. Such discretion may be exercised any time before, during, and after the plan period has commenced or is completed.

Any dispute or controversy arising under this Plan will be settled by the Committee in its sole and absolute discretion.

Employment Duration/Employment Relationship

This Plan does not, and Adventrx's policies and practices in administering this Plan do not, constitute an express or implied contract or other agreement concerning the duration of any Participant's employment with the Company. The employment relationship of each Participant is "at will" and may be terminated at any time by Adventrx or by the Participant, with or without cause.

Other Terms and Conditions of this Plan

The Company is not responsible for any tax liability incurred by Participants that receive an award under this Plan, but reserves the right to deduct from any award payment an amount equal to all or any part of the deductions or taxes required by law to be withheld by the Company.

This Plan is unfunded and no provision of this Plan shall require the Company, for the purpose of satisfying any Plan obligations, to purchase assets or place any assets in a trust or other entity or otherwise to segregate any assets for such purposes. Nothing contained in this Plan nor any action taken pursuant to its provisions shall create or be construed to create a fiduciary relationship between the Company and any Participant or other person. Any right to receive an award payment under this Plan shall be no greater than the right of any unsecured creditor of the Company.

This Plan shall be governed by, and interpreted, construed, and enforced in accordance with, the laws of the State of California without regard to its or any other jurisdiction's conflicts of laws provisions.

ADVENTRX Pharmaceuticals, Inc.
2009 Mid-Year Incentive Plan

I hereby acknowledge that I have received a copy of the Adventrx Pharmaceuticals, Inc. 2009 Mid-Year Incentive Plan.

Name:

Date:

RETENTION AND SEVERANCE PLAN
(as of July 21, 2009)

This document sets forth all applicable terms of the Retention and Severance Plan (this "Plan") of ADVENTRX Pharmaceuticals, Inc., a Delaware corporation (the "Company"), effective as of the date set forth above and until further amended or terminated by the Company's Board of Directors or a properly authorized committee thereof (collectively, the "Board") in accordance with the terms hereof. Certain capitalized terms used in this Plan are defined in Section 10 below.

1. Applicability. This Plan shall be applicable to each individual listed on Exhibit A (each, an "Employee"), which may be amended by the Company from time to time in accordance with Section 11(a) of this Plan. The Company's obligations under this Plan are in consideration for release of the Employees' rights under the Existing Agreements (as defined below), the cancellation and termination of the January 2009 RSUs (as defined below) and further as an incentive and inducement for the Employee's continued employment in the future.

2. At-Will Employment. Each Employee's employment is and shall continue to be at-will, as defined under applicable law. If the Employee's employment terminates for any reason, the Employee shall not be entitled to any payments, benefits, damages, awards or compensation other than as provided by this Plan or required by applicable law, or as may otherwise be established under the Company's then existing employee benefit plans or policies at the time of termination.

3. Severance Benefits. If an Employee's employment with the Company terminates at any time as a result of an Involuntary Termination, and the Employee delivers (and does not revoke) the Release (as defined in Section 8 below), then the Employee shall be entitled to the following severance benefits:

(a) An amount payable by the Company to the Employee equal to twelve (12) months (the "Benefit Period") of the Employee's then-current base salary, less applicable withholdings, which amount shall be payable in a lump-sum on the date determined pursuant to Section 8.

(b) An amount payable by the Company to the Employee equal to the estimated cost of continuing Employee's health care coverage and the coverage of Employee's dependents who are covered at the time of the Involuntary Termination under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, for a period equal to the Benefit Period, which amount shall be payable in a lump-sum on the date determined pursuant to Section 8.

4. Accrued Obligation. Although the Company's obligations under this Plan are created and are outstanding as of the effective date of this Plan, these obligations with respect to a particular Employee will not mature, and will remain contingent, until such Employee has experienced an Involuntary Termination and also delivered (and not revoked) a release of claims as required under Section 8.

5. Other Terminations. If the Employee experiences a separation from service (within the meaning of Code Section 409A) for any reason other than as a result of an Involuntary Termination then the Employee shall not be entitled to the benefits of Section 3 of this Plan.

6. Accrued Wages and Vacation, Expenses. Without regard to the reason for, or the timing of, the Employee's termination of employment: (i) the Company shall pay the Employee any unpaid base salary due for periods prior to and including the Termination Date; (ii) the Company shall pay the Employee all of the Employee's accrued and unused vacation through the Termination Date; and (iii) following submission of proper expense reports by the Employee, the Company shall reimburse the Employee for all expenses reasonably and necessarily incurred by the Employee in connection with the business of the Company prior to the Termination Date. These payments shall be made promptly upon termination and within the period of time mandated by law (including but not limited to Section 409A of the Internal Revenue Code of 1986, as amended (the "Code")).

7. Company's Successors. Any successor to the Company (whether direct or indirect and whether by purchase, license, lease, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company's business and/or assets (including, if warranted under the circumstances, a subsidiary or parent of such successor) shall assume the Company's obligations under this Plan and agree expressly to perform the Company's obligations under this Plan in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. For all purposes under this Plan, the term "Company" shall include any successor (or, if warranted, a subsidiary or parent of such successor) to the Company's business and/or assets which is required to assume the Company's obligations as described in this section or which becomes bound by the terms of this Plan by operation of law.

8. Execution of Release Agreement upon Termination. As a condition of receiving the benefits under Section 3 of this Plan, the Employee shall execute and not revoke a general release of claims, which will also confirm any post-termination obligations and/or restrictions applicable to the Employee (the "Release"), such that the Release becomes effective no later than 60 days following the Termination Date (the "Release Deadline"). The benefits under Section 3 shall be paid on the date the Release is effective; provided, however, that, in the event the Employee's separation occurs at a time during the calendar year where it would be possible for the Release to become effective in the calendar year following the calendar year in which Employee's separation occurs, any severance that would be considered deferred compensation (as defined in Section 409A of the Code) will be paid within fifteen (15) days following the Release Deadline.

9. Notices.

(a) General. Notices and all other communications contemplated by this Plan shall be in writing and shall be deemed to have been duly given when personally delivered or three (3) days after having been mailed by U.S. registered or certified mail, return receipt requested and postage prepaid. In the case of the Employee, mailed notices shall be addressed to him or her at the home address that he or she most recently communicated to the Company in writing. In the case of the Company, mailed notices shall be addressed to its corporate headquarters, and all notices shall be directed to the attention of its Secretary.

(b) Notice of Termination. Any termination of employment by the Company with or without Cause or by the Employee as a result of an Involuntary Termination shall be communicated by a notice of termination to the other party hereto given in accordance with this Section 9(b) and the second paragraph of Section 10(b). Any such notice provided by the Company under circumstances constituting a for-Cause

termination, or by the Employee under circumstances constituting such an Involuntary Termination, shall indicate the specific termination provision in this Plan relied upon, shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination under the provision so indicated, and shall specify the Termination Date. The failure by either party to include in the notice any fact or circumstance which contributes to a showing of a for-Cause termination or an Involuntary Termination shall not waive any right of such party hereunder or preclude such party from asserting such fact or circumstance in enforcing such party's rights hereunder.

10. Definition of Terms. The following terms referred to in this Plan shall have the following meanings:

(a) Cause. "Cause" shall mean (i) any act of personal dishonesty taken by the Employee in connection with his or her responsibilities as an employee which is intended to result in substantial personal enrichment of the Employee; (ii) Employee's conviction of a felony that the Board reasonably believes has had or will have a material detrimental effect on the Company's reputation or business; (iii) a willful act by the Employee that constitutes misconduct and is materially injurious to the Company, or (iv) continued willful violations by the Employee of the Employee's obligations to the Company after there has been delivered to the Employee a written demand for performance from the Company that describes the basis for the Company's belief that the Employee has not substantially performed his or her duties.

(b) Involuntary Termination. "Involuntary Termination" shall mean (i) without the Employee's express written consent, a Board action or external events causing or immediately portending a material reduction or alteration of the Employee's duties, position or responsibilities relative to the Employee's duties, position or responsibilities in effect immediately prior to such reduction or alteration, or the removal of the Employee from such position, duties or responsibilities; provided, however, that an "Involuntary Termination" under this clause (b)(i) shall not be deemed to occur (A) with respect to Brian M. Culley, if Mr. Culley remains the head of and most senior individual within the Company's (or its successor's, as contemplated under Section 7) business development function and (B) with respect to Patrick L. Keran, if Mr. Keran remains the head of and most senior individual within the Company's (or its successor's, as contemplated under Section 7) legal function; (ii) without the Employee's express written consent, a material reduction by the Company of the Employee's base salary as in effect immediately prior to such reduction; (iii) without the Employee's express written consent, the relocation of the Employee's principal place of employment with the Company by more than fifty (50) miles; (iv) any termination of the Employee by the Company without Cause; or (v) a material breach of this Plan, including, but not limited to the failure of the Company to obtain the assumption of this Plan by any successors as contemplated in Section 7.

Except in the case of a termination of the Employee by the Company without Cause, an "Involuntary Termination" under this Section 10(b) shall not be deemed to occur until the Company has received written notice from the Employee of the occurrence of an Involuntary Termination and had thirty (30) days after the Company's receipt of such notice to cure or remedy such Involuntary Termination (the "Remedy Period"). In order to be effective, a resignation for Involuntary Termination must occur within ten (10) business days after the end of the Remedy Period in which the Company failed to cure or remedy the Involuntary Termination and Employee must have provided the foregoing written notice of the occurrence of an Involuntary Termination event to the Company within ninety (90) days of Employee's awareness of the initial existence of the applicable Involuntary Termination event. The items referenced above constitute the exclusive list of the reasons that shall be considered "Involuntary Termination" for the termination of Employee's employment by the Employee as an Involuntary Termination.

(c) Termination Date. "Termination Date" shall mean the effective date of any "Separation from Service" within the meaning of Section 409A of the Code.

11. Miscellaneous Provisions.

(a) Amendment or Termination. The Board may in its sole discretion amend or terminate this Plan at any time and in any manner; provided, however, that the Board may not terminate or amend this Plan in a way that is materially adverse to an Employee without the written consent of such Employee; provided further that notwithstanding anything to the contrary contained in this paragraph or in this Plan, it is the parties' intent that no payment made or to be made hereunder shall be subject to the provisions of Section 409A(a)(1)(B) of the Internal Revenue Code, as amended, and accordingly, the parties agree that this Plan and the Employees' rights under it shall be amended to conform to their intent as set forth in this proviso.

(b) Effect of Statutory Benefits. To the extent that any severance benefits are required to be paid to the Employee upon termination of employment with the Company as a result of any requirement of law or any governmental entity in any applicable jurisdiction, the aggregate amount of severance benefits payable pursuant to Section 3 shall be reduced by such amount.

(c) No Duty to Mitigate. The Employee shall not be required to mitigate the amount of any payment contemplated by this Plan, nor shall any such payment be reduced by any earnings that the Employee may receive from any other source.

(d) Waiver. No provision of this Plan may be waived or discharged unless the waiver or discharge is agreed to in writing and signed by the affected Employee and by an authorized officer of the Company (other than the Employee). No waiver by either party of any breach of, or of compliance with, any condition or provision of this Plan by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(e) Termination of Prior Retention Agreements; Integration. This Plan supersedes and terminates that certain Retention and Incentive Agreement, dated January 28, 2009, with each of the Employees (the "Existing Agreements"), and the Existing Agreements shall be of no further force or effect. In addition, those certain awards of Resricted Stock Units granted to each of the Employees on or about January 30, 2009, in each case as contemplated by the Existing Agreements (the "January 2009 RSUs"), are hereby terminated and shall be of no further force or effect. Without limiting the foregoing, this Plan supersedes all prior or contemporaneous agreements, whether written or oral, with respect to this Plan; provided that, for clarification purposes, this Plan shall not affect any agreements between the Company and each Employee regarding intellectual property matters, non-solicitation restrictions or confidential information of the Company. In addition, except as set forth above and in Exhibit B, nothing in this Plan shall be construed as impacting any equity award granted to an Employee.

(f) Choice of Law. The validity, interpretation, construction and performance of this Plan shall be governed by the internal substantive laws, but not the conflicts of law rules, of the State of California.

(g) Severability. The invalidity or unenforceability of any provision or provisions of this Plan shall not affect the validity or enforceability of any other provision hereof, which shall remain in full force and effect.

(h) Employment Taxes. Employee is responsible for any applicable taxes of any nature (including any penalties or interest that may apply to such taxes) that the Company reasonably determines apply to any payment made hereunder. Employee's receipt of any benefit hereunder is conditioned on his or her satisfaction of any applicable withholding or similar obligations that apply to such benefit, and any cash payment owed hereunder will be reduced to satisfy any such withholding or similar obligations that may apply.

(i) Section 409A of the Code.

(i) This Plan is intended to comply with, or otherwise be exempt from, Section 409A of the Code and any regulations and Treasury guidance promulgated thereunder. The Company shall undertake to administer, interpret, and construe this Plan in a manner that does not result in the imposition on an employee of any additional tax, penalty, or interest under Section 409A of the Code. If the Company determines in good faith that any provision of this Plan would cause employees to incur an additional tax, penalty, or interest under Section 409A of the Code, the Board may, without the consent of any employee amend this Plan as may be necessary to ensure compliance with the distribution provisions of Section 409A of the Code or as otherwise needed to ensure that this Plan complies with Section 409A of the Code. The preceding provisions, however, shall not be construed as a guarantee by the Company of any particular tax effect to an employee under this Plan. The Company shall not be liable to any employee for any payment made under this Plan that is determined to result in an additional tax, penalty, or interest under Section 409A of the Code, nor for reporting in good faith any payment made under this Plan as an amount includible in gross income under Section 409A of the Code.

(ii) "Termination of employment," "resignation," or words of similar import, as used in this Plan means, for purposes of any payments under this Plan that are payments of deferred compensation subject to Section 409A of the Code, the employee's "separation from service" as defined in Section 409A of the Code.

(iii) If upon an Employee's "separation from service" (within the meaning of Code Section 409A) with the Company, such Employee is then a "specified employee" (as defined in Code Section 409A), then solely to the extent necessary to comply with Code Section 409A and avoid the imposition of taxes under Code Section 409A, the Company shall defer payment of "nonqualified deferred compensation" subject to Code Section 409A which is payable as a result of and within six (6) months following such separation from service until the earlier of: (a) the first business day of the seventh month following such Employee's separation from service, or (b) ten (10) days after the Company receives written notification of such Employee's death. All such delayed payments shall be made without accrual of interest.

(j) Limitation on Payments. The terms and provisions of Exhibit B, attached hereto, are incorporated herein as if fully set forth herein.

(k) Arbitration. The terms and provisions of Exhibit C, attached hereto, are incorporated herein as if fully set forth herein.

Exhibit A

EMPLOYEES

Brian M. Culley

Patrick L. Keran

Exhibit B

LIMITATION ON PAYMENTS

In the event it shall be determined that any compensation by or benefit from the Company to the Employee or for the Employee's benefit, whether pursuant to the terms of this Plan or otherwise (collectively, the "Payments"), (i) constitute "parachute payments" within the meaning of Section 280G of the Code, and (ii) would be subject to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then the Employee's benefits under this Plan shall be either:

(a) delivered in full, or

(b) delivered as to such lesser extent which would result in no portion of such benefits being subject to the Excise Tax,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the Excise Tax, results in the receipt by the Employee on an after-tax basis of the greatest amount of benefits, notwithstanding that all or some portion of such benefits may be taxable under Section 4999 of the Code.

Unless the Company and the Employee otherwise agree in writing, any determination required under this Exhibit B shall be made in writing by the Company's independent public accountants (the "Accountants"), whose determination shall be conclusive and binding upon the Employee and the Company for all purposes. For purposes of making the calculations required by this Exhibit B, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and the Employee shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Exhibit B. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Exhibit B.

In the event that Payments must be reduced, then the Payments will be reduced in accordance with the following order of priority: (a) first, Full Credit Payments (as defined below) will be reduced in reverse chronological order such that the payment owed on the latest date following the occurrence of the event triggering the Excise Tax will be the first Payment to be reduced until such Payment is reduced to zero, and then the Payment owed on the next latest date following occurrence of the event triggering the Excise Tax will be the second Payment to be reduced

until such payment is equal to zero, and so forth, until all such Full Credit Payments have been reduced to zero, and (b) second, Partial Credit Payments (as defined below) will be reduced in a manner such as to obtain the best economic benefit for the employee so that after giving effect to such reduction, the employee retains the greatest economic value of such Partial Credit Payments. "Full Credit Payment" means a payment, distribution or benefit, whether paid or payable or distributed or distributable pursuant to the terms of this Plan or otherwise, that if reduced in value by one dollar reduces the amount of the parachute payment by one dollar. "Partial Credit Payment" means a payment, distribution or benefit, whether paid or payable or distributed or distributable pursuant to the terms of this letter or otherwise, that if reduced in value by one dollar reduces the amount of the parachute payment by an amount that is less than one dollar. For clarification purposes only, a "Partial Credit Payment" would include a stock option as to which vesting is accelerated upon an event that triggers the Excise Tax, where the in the money value of the option exceeds the value of the option acceleration that is added to the parachute payment.

Exhibit C

ARBITRATION

Any dispute or controversy arising out of, relating to, or in connection with this Plan, or the interpretation, validity, construction, performance, breach, or termination thereof, shall be settled by binding arbitration to be held in the County of San Diego, State of California in accordance with the National Rules for the Resolution of Employment Disputes then in effect of the American Arbitration Association (the "Rules"). The arbitrator may grant injunctions or other relief in such dispute or controversy. The decision of the arbitrator shall be final, conclusive and binding on the parties to the arbitration. Judgment may be entered on the arbitrator's decision in any court having jurisdiction.

The arbitrator(s) shall apply California law to the merits of any dispute or claim, without reference to conflicts of law rules. The arbitration proceedings shall be governed by federal arbitration law and by the Rules, without reference to state arbitration law. Employee and the Company consent to the personal jurisdiction of the state and federal courts located in California for any action or proceeding arising from or relating to this Plan or relating to any arbitration in which the parties are participants.

Nothing in this Exhibit C modifies Employee's at-will employment status. Either Employee or the Company can terminate the employment relationship at any time, with or without Cause.

SUBMISSION OF ANY CLAIMS ARISING OUT OF, RELATING TO, OR IN CONNECTION WITH THIS PLAN, OR THE INTERPRETATION, VALIDITY, CONSTRUCTION, PERFORMANCE, BREACH OR TERMINATION THEREOF TO BINDING ARBITRATION, CONSTITUTES A WAIVER OF THE PARTY'S RIGHT TO A JURY TRIAL AND RELATES TO THE RESOLUTION OF ALL DISPUTES RELATING TO ALL ASPECTS OF THE EMPLOYER/EMPLOYEE RELATIONSHIP, INCLUDING BUT NOT LIMITED TO, THE FOLLOWING CLAIMS:

ANY AND ALL CLAIMS FOR WRONGFUL DISCHARGE OF EMPLOYMENT; BREACH OF CONTRACT, BOTH EXPRESS AND IMPLIED; BREACH OF THE COVENANT OF GOOD FAITH AND FAIR DEALING, BOTH EXPRESS AND IMPLIED; NEGLIGENT OR INTENTIONAL INFLICTION OF EMOTIONAL DISTRESS; NEGLIGENT OR INTENTIONAL MISREPRESENTATION; NEGLIGENT OR INTENTIONAL INTERFERENCE WITH CONTRACT OR PROSPECTIVE ECONOMIC ADVANTAGE; AND DEFAMATION;

ANY AND ALL CLAIMS FOR VIOLATION OF ANY FEDERAL STATE OR MUNICIPAL STATUTE, INCLUDING, BUT NOT LIMITED TO, TITLE VII OF THE CIVIL RIGHTS ACT OF 1964, THE CIVIL RIGHTS ACT OF 1991, THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967, THE AMERICANS WITH DISABILITIES ACT OF 1990, THE FAIR LABOR STANDARDS ACT, THE CALIFORNIA FAIR EMPLOYMENT AND HOUSING ACT, AND LABOR CODE SECTION 201, *et seq*; and

ANY AND ALL CLAIMS ARISING OUT OF ANY OTHER LAWS AND REGULATIONS RELATING TO EMPLOYMENT OR EMPLOYMENT DISCRIMINATION.

ADVENTRX PHARMACEUTICALS, INC.

RETENTION AND SEVERANCE PLAN

ACKNOWLEDGMENT AND AGREEMENT TO PARTICIPATE

1. I have received a copy of the ADVENTRX Pharmaceuticals, Inc. Retention and Severance Plan (as of July 21, 2009) (the "Plan").

2. I have reviewed the Plan and have had a chance to consult a lawyer to assist me in such review. Having either consulted a lawyer for such purpose or voluntarily chosen not to do so, I acknowledge that I understand the benefits, terms and conditions that the Plan conveys and imposes.

3. I acknowledge and agree that the Plan supersedes and terminates that certain Retention and Incentive Agreement, dated January 28, 2009, between the Company and me (the "Existing Agreement"), and that the Existing Agreement shall be of no further force or effect. In addition, I acknowledge and agree that the Resricted Stock Units granted to me on or about January 30, 2009, as contemplated by the Existing Agreement, are hereby terminated and shall be of no further force or effect.

4. By my signature below I accept the benefits conveyed by the Plan and agree to all conditions of the Plan, including without limitation and to the extent applicable, my agreement to certain post-termination obligations and/or restrictions that may be applicable to me. In addition, I expressly waive any and all benefits to which I might otherwise have been entitled in connection with an Involuntary Termination (as defined in the Plan) except as expressly set forth in the Plan or as otherwise required to be provided to me under applicable law.

(Signature)

Participant:

(Print Name)

Date: