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

FORM 10-Q

(Mark One)

☑ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2008

OR

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission File Number 001-32157

ADVENTRX Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**84-1318182**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
6725 Mesa Ridge Road, Suite 100, San Diego, CA	**92121**
(Address of principal executive offices)	*(Zip Code)*

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

N/A
(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer: o Accelerated filer: ☑ Non-accelerated filer: o Smaller reporting company: o
(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No ☑

The number of shares outstanding of the registrant's common stock, $0.001 par value, as of May 5, 2008 was 90,252,572.

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PART I — FINANCIAL INFORMATION

Item 1. Financial Statements

ADVENTRX Pharmaceuticals, Inc. and Subsidiaries
(A Development Stage Enterprise)
Condensed Consolidated Balance Sheets

	March 31, 2008 (Unaudited)	December 31, 2007 (Note)
Assets		
Current assets:		
Cash and cash equivalents	$ 20,299,364	$ 14,780,739
Short-term investments	8,507,787	18,682,417
Interest receivable	—	72,029
Prepaid expenses	670,072	615,691
Total current assets	29,477,223	34,150,876
Property and equipment, net	318,381	332,444
Other assets	58,305	58,305
Total assets	$ 29,853,909	$ 34,541,625
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 300,188	$ 552,143
Accrued liabilities	2,611,372	2,317,910
Accrued compensation and payroll taxes	1,181,766	622,762
Total current liabilities	4,093,326	3,492,815
Long-term liabilities	8,918	14,270
Total liabilities	4,102,244	3,507,085
Commitments and contingencies		
Stockholders' equity:		
Common stock, $0.001 par value; 200,000,000 shares authorized; 90,252,572 shares issued and outstanding at March 31, 2008 and December 31, 2007	90,254	90,254
Additional paid-in capital	130,784,645	130,140,549
Deficit accumulated during the development stage	(105,132,037)	(99,198,965)
Accumulated other comprehensive income	8,803	2,702
Total stockholders' equity	25,751,665	31,034,540
Total liabilities and stockholders' equity	$ 29,853,909	$ 34,541,625

Note: The balance sheet at December 31, 2007 has been derived from audited financial statements at that date. It does not include, however, all of the information and notes required by U.S. generally accepted accounting principles for complete financial statements.

See accompanying notes to unaudited condensed consolidated financial statements.

ADVENTRX Pharmaceuticals, Inc. and Subsidiaries
(A Development Stage Enterprise)
Condensed Consolidated Statements of Operations
(Unaudited)

	Three months ended March 31,		Inception (June 12, 1996) through March 31,
	2008	2007	2008
Licensing revenue	$ —	$ 500,000	$ 500,000
Net sales	—	—	174,830
Grant revenue	—	—	129,733
Total net revenue	—	500,000	804,563
Cost of net sales	—	—	51,094
Gross margin	—	500,000	753,469
Operating expenses:			
Research and development	3,820,307	3,384,660	47,912,680
Selling, general and administrative	2,365,194	2,809,449	35,614,783
Depreciation and amortization	46,779	51,889	10,676,811
In-process research and development	—	—	10,422,130
Impairment loss — write-off of goodwill	—	—	5,702,130
Equity in loss of investee	—	—	178,936
Total operating expenses	6,232,280	6,245,998	110,507,470
Loss from operations	(6,232,280)	(5,745,998)	(109,754,001)
Interest income	299,208	622,184	4,331,272
Interest expense	—	—	(179,090)
Loss before cumulative effect of change in accounting principle	(5,933,072)	(5,123,814)	(105,601,819)
Cumulative effect of change in accounting principle	—	—	(25,821)
Net loss	(5,933,072)	(5,123,814)	(105,627,640)
Preferred stock dividends	—	—	(621,240)
Net loss applicable to common stock	$ (5,933,072)	$ (5,123,814)	$ (106,248,880)
Loss per common share — basic and diluted	$ (0.07)	$ (0.06)	
Weighted average shares outstanding — basic and diluted	90,252,572	89,676,739	

See accompanying notes to unaudited condensed consolidated financial statements.

ADVENTRX Pharmaceuticals, Inc. and Subsidiaries
(A Development Stage Enterprise)
Condensed Consolidated Statements of Cash Flows
(Unaudited)

	Three months ended March 31, 2008	2007	Inception (June 12, 1996) through March 31, 2008
Cash flows from operating activities:			
Net loss	$ (5,933,072)	$ (5,123,814)	$ (105,627,640)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	46,779	51,889	10,226,811
In-process research and development	—	—	10,422,130
Share-based compensation for employee awards	638,416	600,009	7,081,745
Expense related to stock options issued to non-employees	5,680	25,549	205,362
Expenses paid by issuance of common stock	—	19,583	1,144,697
Expenses paid by issuance of warrants	—	—	573,357
Expenses paid by issuance of preferred stock	—	—	142,501
Expenses related to stock warrants issued	—	—	612,000
Accretion of discount on investments in securities	(131,929)	(282,792)	(1,528,320)
Amortization of debt discount	—	—	450,000
Loss on disposals of property and equipment	188	—	188
Forgiveness of employee receivable	—	—	30,036
Impairment loss — write-off of goodwill	—	—	5,702,130
Equity in loss of investee	—	—	178,936
Write-off of license agreement	—	—	152,866
Write-off of assets available-for-sale	—	—	108,000
Cumulative effect of change in accounting principle	—	—	25,821
Changes in assets and liabilities, net of effect of acquisitions:			
Increase (decrease) in prepaid expenses and other assets	17,648	(171,728)	(975,746)
Increase in accounts payable and accrued liabilities	588,129	334,684	4,257,651
Increase (decrease) in other long-term liabilities	(5,352)	(5,351)	8,918
Net cash used in operating activities	(4,773,513)	(4,551,971)	(66,808,557)
Cash flows from investing activities:			
Purchases of short-term investments	(6,437,340)	(13,681,067)	(103,265,440)
Proceeds from sales and maturities of short-term investments	16,750,000	13,250,000	96,294,776
Purchases of property and equipment	(20,522)	(36,430)	(985,920)
Purchase of certificate of deposit	—	—	(1,016,330)
Maturity of certificate of deposit	—	—	1,016,330
Payment on obligation under license agreement	—	—	(106,250)
Cash acquired from acquisitions, net of cash paid	—	—	32,395
Issuance of note receivable — related party	—	—	(35,000)
Payments on note receivable	—	—	405,993
Advance to investee	—	—	(90,475)
Cash transferred in rescission of acquisition	—	—	(19,475)
Cash received in rescission of acquisition	—	—	230,000
Net cash provided by (used in) investing activities	10,292,138	(467,497)	(7,539,396)
Cash flows from financing activities:			
Proceeds from sale of preferred stock	—	—	4,200,993
Proceeds from sale of common stock	—	—	84,151,342
Proceeds from exercise of stock options	—	—	712,367
Proceeds from sale or exercise of warrants	—	—	11,382,894
Repurchase of warrants	—	—	(55,279)
Payment of financing and offering costs	—	—	(6,483,809)
Payments of notes payable and long-term debt	—	—	(605,909)
Proceeds from issuance of notes payable and detachable warrants	—	—	1,344,718
Net cash provided by financing activities	—	—	94,647,317
Net increase (decrease) in cash and cash equivalents	5,518,625	(5,019,468)	20,299,364
Cash and cash equivalents at beginning of period	14,780,739	25,974,041	—
Cash and cash equivalents at end of period	$ 20,299,364	$ 20,954,573	$ 20,299,364

See accompanying notes to unaudited condensed consolidated financial statements.

ADVENTRX Pharmaceuticals, Inc. and Subsidiaries
(A Development Stage Enterprise)
Notes to Condensed Consolidated Financial Statements (Unaudited)

1. Basis of Presentation

ADVENTRX Pharmaceuticals, Inc., a Delaware corporation ("ADVENTRX," "we" or the "Company"), prepared the unaudited interim condensed consolidated financial statements in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") for interim financial information and with the instructions of the Securities and Exchange Commission ("SEC"). Accordingly, they do not include all of the information and disclosures required by U.S. GAAP for annual audited financial statements and should be read in conjunction with our audited consolidated financial statements and related notes for the year ended December 31, 2007 included in our Annual Report on Form 10-K filed with the SEC on March 17, 2008 ("2007 Annual Report"). The condensed consolidated balance sheet as of December 31, 2007 has been derived from the audited consolidated financial statements included in the 2007 Annual Report. In the opinion of management, these consolidated financial statements include all adjustments (consisting of normal recurring adjustments) necessary for a fair presentation of the financial position, results of operations, and cash flows for the periods presented. The results of operations for the interim periods shown in this report are not necessarily indicative of results expected for the full year.

Since our inception, we have reported accumulated net losses of approximately $105.6 million and recurring negative cash flows from operations. In order to maintain sufficient cash and investments to fund future operations, and to continue developing our existing product candidates, we may need or choose to seek additional capital in the next 12 months through collaborations, licensing arrangements or other strategic transactions, public or private sales of our equity securities, and/or debt financings. The balance of securities available-for-sale under our existing shelf registration was approximately $60.0 million as of March 31, 2008, but we may be subject to limitations with respect to the number of securities we can sell under this shelf registration. If we are unable to raise capital as needed to fund future operations, then we may defer or abandon one or more of our research and development programs and may need to take additional cost-cutting measures.

The condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, SD Pharmaceuticals, Inc. and ADVENTRX (Europe) Ltd. All intercompany accounts and transactions have been eliminated in consolidation.

2. Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

3. Fair Value

Effective January 1, 2008, we adopted Statement of Financial Accounting Standards ("FAS") No. 157, "Fair Value Measurements" ("FAS 157"). In February 2008, the Financial Accounting Standards Board ("FASB") issued FASB Staff Position ("FSP") No. FAS 157-2, "Effective Date of FASB Statement No. 157," which provides a one year deferral of the effective date of FAS 157 for non-financial assets and non-financial liabilities, except those that are recognized or disclosed in the financial statements at fair value at least annually. Therefore, we have adopted the provisions of FAS 157 with respect to our financial assets and liabilities only. The adoption of FAS 157 did not have a material impact on our consolidated results of operations or financial condition.

FAS 157 defines fair value, establishes a framework for measuring fair value under generally accepted accounting principles and enhances disclosures about fair value measurements. Fair value is defined under FAS 157 as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value under FAS 157 must maximize the use of observable inputs and minimize the use of unobservable inputs. The standard describes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value which are the following:

- Level 1 - Quoted prices in active markets for identical assets or liabilities.

- Level 2 - Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

- Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The following table represents our fair value hierarchy for our financial assets (cash equivalents and short-term investments in securities) measured at fair value on a recurring basis as of March 31, 2008:

	Level 1	Level 2	Level 3	Total
Money market funds	$16,082,306	$ —	$ —	$16,082,306
U.S. Government debt securities	9,464,524	—	—	9,464,524
Commercial paper	—	2,536,934	—	2,536,934
Total	$25,546,830	$2,536,934	$ —	$28,083,764

Effective January 1, 2008, we adopted FAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities" ("FAS 159"). FAS 159 allows an entity the irrevocable option to elect to measure specified financial assets and liabilities in their entirety at fair value on a contract-by-contract basis. If an entity elects the fair value option for an eligible item, changes in the item's fair value must be reported as unrealized gains and losses in earnings at each subsequent reporting date. In adopting FAS 159, we did not elect the fair value option for any of our financial assets or financial liabilities.

4. Share-Based Payments

Estimated share-based compensation expense related to equity awards granted to employees for the three months ended March 31, 2008 and 2007 was as follows:

	Three Months Ended March 31, 2008	2007
Selling, general and administrative expense	$332,720	$346,305
Research and development expense	305,696	253,704
Share-based compensation expense before taxes	638,416	600,009
Related income tax benefits	—	—
Share-based compensation expense	$638,416	$600,009
Net share-based compensation expense per common share — basic and diluted	$ 0.01	$ 0.01

Since we have a net operating loss carryforward as of March 31, 2008, no excess tax benefits for the tax deductions related to share-based awards were recognized in the condensed consolidated statement of operations. There were no employee stock options exercised in the three months ended March 31, 2008 and 2007.

At March 31, 2008, total unrecognized estimated compensation cost related to non-vested employee share-based awards granted prior to that date was $3.5 million, which is expected to be recognized over a weighted-average period of 3.1 years. During the three months ended March 31, 2008 and 2007, we granted 1,802,500 and 652,333 stock options, respectively, to our employees with the estimated weighted-average grant-date fair value of $0.51 and $2.51 per share, respectively.

	Three Months Ended March 31, 2008	2007
Weighted expected volatility	147.9%	138.1%
Average expected term (in years)	6.3	6.1
Average risk-free interest rate	2.9%	4.7%
Dividend yield	0	0

Estimated share-based compensation expense related to equity awards granted to non-employee consultants was approximately $6,000 and $26,000 for the three months ended March 31, 2008 and 2007, respectively.

5. Net Loss Per Common Share

We calculate basic and diluted net loss per common share in accordance with the FAS No. 128, "Earnings Per Share". Basic net loss per common share was calculated by dividing the net loss for the period by the weighted-average number of common shares outstanding during the period, without consideration for common stock equivalents. Options and warrants are considered to be common stock equivalents and are only included in the calculation of diluted earnings per common share when their effect is dilutive. Because of the net loss, all of the options and warrants were excluded from the calculation.

We have excluded the following options and warrants from the calculation of diluted net loss per common share for the three months ended March 31, 2008 and 2007 which, because of the net loss, their effect is anti-dilutive:

	2008	2007
Warrants	13,373,549	13,458,549
Options	5,589,483	4,297,957
	18,963,032	17,756,506

6. Comprehensive Loss

Comprehensive loss is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources, including foreign currency translation adjustments and unrealized gains and losses on short-term investments. Our components of comprehensive loss consist of net loss and unrealized gains or losses on short-term investments in securities. For the three months ended March 31, 2008 and 2007, comprehensive loss was $5.9 million and $5.1 million, respectively.

7. Recent Accounting Pronouncements

In March 2008, the FASB issued FAS No. 161, "Disclosures About Derivative Instruments and Hedging Activities — an amendment of FASB Statement No. 133" ("FAS 161"). FAS 161 expands quarterly disclosure requirements in FAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," about an entity's derivative instruments and hedging activities. FAS 161 is effective for fiscal years beginning after November 15, 2008. We do not expect the adoption of FAS 161 will have a material impact on our consolidated results of operations or financial position.

8. License Fee Revenue

In October 2006, we entered into a license agreement with Theragenex, LLC ("Theragenex"). Under the agreement, we granted Theragenex exclusive rights to develop and commercialize ANX-211 in the U.S. in exchange for a licensing fee of $1.0 million ($500,000 of which we received in January 2007 and $500,000 of which was due in June 2007 but remains unpaid), milestone payments and royalties. In May 2007, we received a letter from TRx Pharma, a subsidiary of Theragenex, that we believe was intended to constitute notice of termination of the agreement with Theragenex, though the letter did not explicitly state that it constituted notice of termination. In its letter, TRx Pharma requested a refund of the initial $500,000 payment and, in subsequent discussions, has indicated that it does not intend to pay the remaining $500,000. On July 3, 2007, we notified Theragenex that, among other things, its failure to make the final $500,000 payment constituted a material breach of the agreement. On August 9, 2007, we delivered a letter to Theragenex confirming our termination of the agreement as a result of Theragenex's breach, pursuant to the terms of the agreement. See Note 10, "Commitments and Contingencies," for further discussion.

For the three months ended March 31, 2007, we recognized $500,000 in license fee revenue, which we received in January 2007, because our performance obligations were complete, collectibility was reasonably assured and we had no continuing obligations for performance under the agreement. No license revenue was recognized in the three months ended March 31, 2008. We do not intend to refund the initial $500,000 payment from Theragenex and we intend to pursue appropriate action to collect payment of the final $500,000 payment due in June 2007; however, in accordance with the provisions of the SEC's Staff Accounting Bulletin Topic 13, "Revenue Recognition," ("Topic 13"), we will not recognize revenue with respect to the uncollected amount until collectibility is reasonably assured.

9. Supplementary Cash Flow Information

Noncash investing and financing transactions excluded from the condensed consolidated statements of cash flows for the three months ended March 31, 2008 and 2007 and for the period from inception (June 12, 1996) through March 31, 2008 are as follows:

	Three months ended March 31, 2008	2007	Inception (June 12, 1996) through March 31, 2008
Supplemental disclosures of cash flow information:			
Interest paid	$—	$—	$179,090
Income taxes paid	—	—	—

	Three months ended March 31, 2008	2007	Inception (June 12, 1996) through March 31, 2008
Issuance of warrants, common stock and preferred stock for:			
Conversion of notes payable and accrued interest	$ —	$ —	$ 1,213,988
Prepaid services to consultants	—	—	1,482,781
Conversion of preferred stock	—	—	2,705
Acquisitions	—	—	24,781,555
Payment of dividends	—	—	213,000
Financial advisor services in connection with private placement	—	—	1,137,456
Acquisition of treasury stock in settlement of a claim	—	—	34,747
Cancellation of treasury stock	—	—	(34,747)
Assumptions of liabilities in acquisitions	—	—	1,235,907
Acquisition of license agreement for long-term debt	—	—	161,180
Cashless exercise of warrants	—	—	4,312
Dividends accrued	—	—	621,040
Trade asset converted to available-for-sale asset	—	—	108,000
Dividends extinguished	—	—	408,240
Trade payable converted to note payable	—	—	83,948
Issuance of warrants for return of common stock	—	—	50,852
Detachable warrants issued with notes payable	—	—	450,000
Purchases of equipment, which are included in accounts payable	12,382	—	12,382
Unrealized gain on short-term investments	(6,101)	(247)	(8,803)

10. Commitments and Contingencies

In the normal course of business, we may become subject to lawsuits and other claims and proceedings. Such matters are subject to uncertainty and outcomes are often not predictable with assurance.

On October 11, 2007, we filed a demand for arbitration against Theragenex (doing business as TRx Pharma, LLC and/or TRx Pharmaceuticals, LLC) and David M. Preston, founder, Chairman, President and Chief Executive Officer of Theragenex in his individual capacity as the alter ego of Theragenex, seeking damages of up to $10 million with respect to breach of the license agreement, dated October 20, 2006, between us and Theragenex. In accordance with the terms of the license agreement, we filed our demand with the American Arbitration Association and requested that the hearing take place in San Diego, California. On November 8, 2007, Theragenex responded to our demand, asserting numerous affirmative defenses counterclaiming intentional misrepresentation, negligent misrepresentation and rescission and seeking a refund of its $500,000 payment, plus interest, rescission of the license agreement and that we pay its reasonable attorneys fees and costs associated with the action. Also on November 8, 2007, Mr. Preston objected to his participation and being named as a respondent in the arbitration. We believe the likelihood of an unfavorable outcome as a result of Theragenex's counterclaims is remote. Unless we earlier settle or otherwise determine not to pursue the matter, we expect an arbitration hearing date in the fourth quarter of 2008. We are unable to predict the outcome of our claim against Theragenex and the amount that we could receive, if any, from the arbitration proceedings.

11. Subsequent Events

On April 3, 2008, Mark N.K. Bagnall, a member of our board of directors, joined us as chief financial officer, treasurer and executive vice president. Mr. Bagnall continues to serve as a member of our board of directors, but resigned his positions on our board's audit, compensation and nominating and governance committees, as well as his position as chair of the audit committee. Jack Lief, currently chair of our board of directors, has assumed Mr. Bagnall's responsibilities as chair of the audit committee.

On April 2, 2008, our employment relationship with Gregory P. Hanson ended. Mr. Hanson served as our chief financial officer, treasurer and senior vice president since December 2006. Effective April 11, 2008, we entered into a letter agreement with Mr. Hanson governing the terms of his separation of employment, pursuant to which we agreed to the terms set forth in Mr. Hanson's employment offer letter, dated December 13, 2006, and in a stock option agreement, dated December 20, 2006.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and related notes appearing elsewhere in this report. In addition to historical information, this discussion and analysis contains forward-looking statements that involve risks, uncertainties, and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of certain factors, including but not limited to those set forth under Item 1A of Part II, "Risk Factors," in this report and Item 1A of Part I, "Risk Factors," in our annual report on Form 10-K for the year ended December 31, 2007.

Overview

We are a biopharmaceutical company focused on in-licensing, developing and commercializing proprietary product candidates primarily for the treatment of cancer and infectious disease. We seek to improve the performance and commercial potential of existing treatments by addressing limitations associated with these treatment regimens.

Currently, we are focused primarily on advancing ANX-530 and ANX-514, which are novel emulsion formulations of currently marketed chemotherapy drugs. We are also developing ANX-510, or CoFactor®, which is a folate-based biomodulator designed to replace leucovorin as the preferred method to enhance the activity and reduce the associated toxicity of the widely used cancer chemotherapeutic agent 5-FU (5-fluorouracil).

We are a development stage company and have incurred annual net losses since inception. We have devoted substantially all of our resources to research and development ("R&D") or to acquisition of our product candidates. We have not yet marketed any products or generated any significant revenue from licensing our products or technology. As of March 31, 2008, our accumulated net losses amounted to $105.6 million. We expect that our R&D, selling, general and administrative ("SG&A") and other operating costs will continue to exceed revenues for the foreseeable future. In order to maintain sufficient cash and investments to fund future operations, and to continue developing our existing product candidates at the levels we believe optimizes their value, we may need or choose to seek additional capital in 2008 through collaborations, licensing arrangements or other strategic transactions, public or private sales of our equity securities, and/or debt financings. If we are unable to raise capital as needed to fund future operations, then we may defer or abandon one or more of our R&D programs and may need to take additional cost-cutting measures.

We may seek to commercialize ANX-530 and ANX-514 ourselves. In that event, we will likely incur substantial costs undertaking the activities associated with preparing for commercial launch of a product, including establishing commercial-scale manufacturing capabilities and hiring sales personnel and creating and maintaining a sales and distribution organization and associated regulatory compliance infrastructure. Substantial costs may be incurred in advance of the United States Food and Drug Administration's ("FDA") decisions regarding marketing approvals of ANX-530 and ANX-514. We may also incur significant additional costs continuing clinical development of CoFactor, depending on our assessment of the value of developing CoFactor independently in particular indications and cancer stages.

In April 2008, Mark N.K. Bagnall, a member of our board of directors, joined us as chief financial officer, treasurer and executive vice president. Mr. Bagnall continues to serve as a member of our board of directors, but resigned his positions on our board's audit, compensation and nominating and governance committees, as well as his position as chair of the audit committee. Jack Lief, currently chair of the board of directors, has assumed Mr. Bagnall's responsibilities as chair of the audit committee.

Also, in April 2008 we hired a vice president of manufacturing, a newly-created position, who will be responsible for leading our planned commercial manufacturing operations.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations is based upon consolidated financial statements that we have prepared in accordance with U.S. GAAP. The preparation of these consolidated financial statements requires management to make a number of assumptions and estimates that affect the reported amounts of assets, liabilities, revenues and expenses in our consolidated financial statements and accompanying notes. On an on-going basis, we evaluate these estimates and assumptions, including those related to recognition of expenses in service contracts, license agreements, share-based compensation and registration payment arrangements. Management bases its estimates on historical information and assumptions believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Fair Value. Effective January 1, 2008, we adopted FAS 157, "Fair Value Measurements". In February 2008, the FASB issued FSP No. 157-2, "Effective Date of FASB Statement No. 157," which provides a one year deferral of the effective date of FAS 157 for non-financial assets and non-financial liabilities, except those that are recognized or disclosed in the financial statements at fair value at least annually. Therefore, we have adopted the provisions of FAS 157 with respect to our financial assets and liabilities only. FAS 157 defines fair value, establishes a framework for measuring fair value under generally accepted accounting principles and enhances disclosures about fair value measurements. Fair value is defined under FAS 157 as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value under FAS 157 must maximize the use of observable inputs and minimize the use of unobservable inputs. The standard describes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value which are the following:

- Level 1 - Quoted prices in active markets for identical assets or liabilities.
- Level 2 - Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The adoption of FAS 157 did not have a material impact on our consolidated results of operations or financial condition.

Effective January 1, 2008, we adopted FAS 159, "The Fair Value Option for Financial Assets and Financial Liabilities". FAS 159 allows an entity the irrevocable option to elect to measure specified financial assets and liabilities in their entirety at fair value on a contract-by-contract basis. If an entity elects the fair value option for an eligible item, changes in the item's fair value must be reported as unrealized gains and losses in earnings at each subsequent reporting date. In adopting FAS 159, we did not elect the fair value option for any of our financial assets or financial liabilities.

Registration Payment Arrangements. We account for an outstanding registration payment arrangement in accordance with the FSP on No. 00-19-2, "Accounting for Registration Payment Arrangements," which provides that a contingent obligation to make future payments or otherwise transfer consideration under a registration payment arrangement is separately recognized and measured in accordance with FAS No. 5, "Accounting for Contingencies" ("FAS 5"). FAS 5 provides that loss contingencies should be recognized as liabilities if they are probable and reasonably estimable.

Income Taxes. Effective January 1, 2007, we adopted FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes-an Interpretation of FASB Statement 109" ("FIN 48"), which did not have a material impact on our consolidated results of operations or financial position. FIN 48 clarifies the accounting for uncertainty in tax positions. FIN 48 provides that the tax effects from an uncertain tax position can be recognized in our consolidated financial statements only if the position is more likely than not of being sustained upon an examination by tax authorities. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. Additionally, FIN 48 provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition.

Revenue Recognition. We recognize revenue in accordance with Topic 13, "Revenue Recognition," and Emerging Issues Task Force Issue ("EITF") No. 00-21, "Revenue Arrangements with Multiple Deliverables" ("EITF 00-21"). Revenue is recognized when all of the following criteria are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services have been rendered; (3) the seller's price to the buyer is fixed and determinable; and (4) collectibility is reasonably assured.

Revenue from licensing agreements is recognized based on the performance requirements of the agreement. Revenue is deferred for fees received before earned. Nonrefundable upfront fees that are not contingent on any future performance by us are recognized as revenue when revenue recognition criteria under Topic 13 and EITF 00-21 are met and the license term commences. Nonrefundable upfront fees, where we have ongoing involvement or performance obligations, are recorded as deferred revenue and recognized as revenue over the life of the contract, the period of the performance obligation or the development period, whichever is appropriate in light of the circumstances.

Payments related to substantive, performance-based milestones in an agreement are recognized as revenue upon the achievement of the milestones as specified in the underlying agreement when they represent the culmination of the earnings process. Royalty revenue from licensed products will be recognized when earned in accordance with the terms of the applicable license agreements.

R&D Expenses. R&D expenses consist of expenses incurred in performing R&D activities, including salaries and benefits, facilities and other overhead expenses, clinical trials, research-related manufacturing services, contract services and other outside expenses. R&D expenses are charged to operations as they are incurred. Advance payments, including nonrefundable amounts, for goods or services that will be used or rendered for future R&D activities are deferred and capitalized. Such amounts will be recognized as an expense as the related goods are delivered or the related services are performed. If the goods will not be delivered, or services will not be rendered, then the capitalized advance payment is charged to expense.

Milestone payments that we make in connection with in-licensed technology or product candidates are expensed as incurred when there is uncertainty in receiving future economic benefits from the licensed technology or product candidates. We consider the future economic benefits from the licensed technology or product candidates to be uncertain until such licensed technology or product candidates are approved for marketing by the FDA or when other significant risk factors are abated. For expense accounting purposes, management has viewed future economic benefits for all of our licensed technology or product candidates to be uncertain.

Payments in connection with our clinical trials are often made under contracts with multiple contract research organizations that conduct and manage clinical trials on our behalf. The financial terms of these agreements are subject to negotiation and vary from contract to contract and may result in uneven payment flows. Generally, these agreements set forth the scope of work to be performed at a fixed fee or unit price or on a time-and-material basis. Payments under these contracts depend on factors such as the successful enrollment or treatment of patients or the completion of other clinical trial milestones. Expenses related to clinical trials are accrued based on our estimates and/or representations from service providers regarding work performed, including actual level of patient enrollment, completion of patient studies, and clinical trials progress. Other incidental costs related to patient enrollment or treatment are accrued when reasonably certain. If the contracted amounts are modified (for instance, as a result of changes in the clinical trial protocol or scope of work to be performed), we modify our accruals accordingly on a prospective basis. Revisions in scope of contract are charged to expense in the period in which the facts that give rise to the revision become reasonably certain. Because of the uncertainty of possible future changes to the scope of work in clinical trials contracts, we are unable to quantify an estimate of the reasonably likely effect of any such changes on our consolidated results of operations or financial position. Historically, we have had no material changes in our clinical trial expense accruals that would have had a material impact on our consolidated results of operations or financial position.

Purchased In-Process Research and Development. In accordance with FAS No. 141, “Business Combinations,” we immediately charge the costs associated with purchased in-process research and development (“IPR&D”) to statement of operations upon acquisition. These amounts represent an estimate of the fair value of purchased IPR&D for projects that, as of the acquisition date, had not yet reached technological feasibility, had no alternative future use, and had uncertainty in receiving future economic benefits from the purchased IPR&D. We determine the future economic benefits from the purchased IPR&D to be uncertain until such technology is approved by the FDA or when other significant risk factors are abated. In the year ended December 31, 2006, we incurred approximately $10.4 million of IPR&D expense related to our acquisition of SD Pharmaceuticals, Inc. in April 2006.

Share-based Compensation Expenses. Effective January 1, 2006, we accounted for share-based compensation awards granted to employees in accordance with the revised FAS No. 123, “Share-Based Payment” (“FAS 123R”) including the provisions of Staff Accounting Bulletins No. 107, “Share-Based Payment” and No. 110. Share-based compensation cost is measured at the grant date, based on the estimated fair value of the award, and is recognized as expense over the employee’s requisite service period. We have no awards with market or performance conditions. As share-based compensation expense is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures. FAS 123R requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures were estimated based on historical experience. Although estimates of share-based compensation expenses are significant to our consolidated financial statements, they are not related to the payment of any cash by us. Prior to January 1, 2006, we accounted for share-based compensation under the recognition and measurement principles of FAS 123, “Accounting for Stock-Based Compensation.”

We estimate the fair value of stock option awards on the date of grant using the Black-Scholes option-pricing model ("Black-Scholes Model"). The determination of the fair value of share-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. These variables include, but are not limited to, our expected stock price volatility over the term of the awards, actual and projected employee stock option exercise behaviors, a risk-free interest rate and expected dividends. We may elect to use different assumptions under the Black-Scholes Model in the future, which could materially affect our net income or loss and net income or loss per share.

We account for share-based compensation awards granted to non-employees in accordance with EITF No. 96-18, "Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services" ("EITF 96-18"). Under EITF 96-18, we determine the fair value of the share-based compensation awards granted as either the fair value of the consideration received or the fair value of the equity instruments issued, whichever is more reliably measurable. If the fair value of the equity instruments issued is used, it is measured using the stock price and other measurement assumptions as of the earlier of either of (1) the date at which a commitment for performance by the counterparty to earn the equity instruments is reached or (2) the date at which the counterparty's performance is complete.

The above listing is not intended to be a comprehensive list of all of our accounting policies. In most cases, the accounting treatment of a particular transaction is specifically dictated by accounting principles generally accepted in the U.S.

Results of Operations

A general understanding of the drug development process is critical to understanding our results of operations. Drug development in the U.S. and most countries throughout the world is a process that includes several steps defined by the FDA and similar regulatory authorities in foreign countries. The FDA approval processes relating to new drugs differ, depending on the nature of the particular drug for which approval is sought. With respect to any drug product with active ingredients not previously approved by the FDA, a prospective drug manufacturer is required to submit a new drug application ("NDA"), which includes complete reports of pre-clinical, clinical and laboratory studies and extensive manufacturing information to prove such product's safety and effectiveness. The NDA process generally requires, before the submission of the NDA, filing of an investigational new drug application, pursuant to which permission is sought to begin clinical testing of the new drug product. An NDA based on published safety and effectiveness studies conducted by others, or previous findings of safety and effectiveness by the FDA, may be submitted under Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act ("FDCA"). Development of new formulations of pharmaceutical products under Section 505(b)(2) of the FDCA may have shorter timelines than those associated with developing new chemical entities.

Generally, with respect to any drug product with active ingredients not previously approved by the FDA, an NDA must be supported by data from at least phase 1, phase 2 and phase 3 clinical trials. Phase 1 clinical trials can be expected to last from 6 to 18 months, phase 2 clinical trials can be expected to last from 12 to 24 months and phase 3 clinical trials can be expected to last from 18 to 36 months. However, clinical development timelines vary widely, as do the total costs of clinical trials and the likelihood of success. We anticipate that we will make determinations as to which R&D programs to pursue and how much funding to direct to each program on an ongoing basis in response to the scientific and clinical success of each product candidate, our ongoing assessment of its market potential and our available resources.

Our expenditures on R&D programs are subject to many uncertainties, including whether we develop our product candidates with a partner or independently. At this time, due to such uncertainties and the risks inherent in the clinical trial process and given the early stage of development of many of our product candidates, we cannot estimate with reasonable certainty the duration of or costs to complete our R&D programs or whether or when or to what extent we will generate revenues from the commercialization and sale of any of our product candidates. The duration and cost of our R&D programs, in particular those associated with clinical trials, vary significantly among programs or within a particular program as a result of a variety of factors, including:

- the number of trials necessary to demonstrate the safety and efficacy of a product candidate;
- the number of patients who participate in the trials;
- the number of sites included in the trials and rates of site approval for the trials;
- the rates of patient recruitment and enrollment;
- the duration of patient treatment and follow-up;
- the costs of manufacturing our product candidates; and
- the costs, requirements, timing of, and the ability to secure regulatory approvals.

The difficult process of seeking regulatory approvals for our product candidates, in particular those containing new chemical entities, and compliance with applicable regulations, requires the expenditure of substantial resources. Any failure by us to obtain, or any delay in obtaining, regulatory approvals could cause our R&D expenditures to increase and, in turn, have a material and unfavorable effect on our results of operations. We cannot be certain when, if ever, we will generate revenues from sales of any of our products.

Comparison of Three Months Ended March 31, 2008 and 2007

Revenue. No revenue was recognized for the three months ended March 31, 2008. Revenue recognized for the three months ended March 31, 2007 represents a $500,000 nonrefundable license fee received under our license agreement with Theragenex, which we terminated in August 2007 as a result of Theragenex's breach of the agreement. We recognized the license fee as revenue in the period our performance obligations were complete, collectibility was reasonably assured and there were no continuing obligations for us to perform under the agreement. We have not generated any revenue from product sales to date, and we do not expect to generate revenue from product sales until such time that we have obtained approval from a regulatory agency to sell one of our product candidates, which we cannot predict will occur.

R&D Expenses. We maintain and evaluate our R&D expenses by the type of cost incurred rather than by project. We maintain and evaluate R&D expenses by type primarily because of the uncertainties described above, as well as because we out-source a substantial portion of our work and our R&D personnel work across multiple programs rather than dedicating their time to one particular program. We began maintaining such expenses by type on January 1, 2005. The following table summarizes our consolidated R&D expenses by type for each of the periods listed and since January 1, 2005:

	Three months ended March 31,		January 1, 2005 through March 31, 2008
	2008	2007	
External clinical study fees and expenses	$ 1,021,920	$ 1,664,585	$ 20,847,534
External non-clinical study fees and expenses (1)	1,418,985	705,249	9,778,764
Personnel costs	1,073,706	761,122	7,347,736
Share-based compensation expense	305,696	253,704	2,464,392
Total	$ 3,820,307	$ 3,384,660	$ 40,438,426

(1) External non-clinical study fees and expenses include preclinical, research-related manufacturing, quality assurance and regulatory expenses.

R&D expenses increased by $435,000, or 13%, to $3.8 million for the three months ended March 31, 2008, compared to $3.4 million for the comparable period in 2007. The increase in R&D expenses was primarily due to a $985,000 increase in external research-related manufacturing and regulatory expenses for ANX-530 and ANX-514, a $365,000 increase in personnel and related costs and a $283,000 increase in external clinical trial expenses related to ANX-514. The increase was offset in part by a $842,000 decrease in external clinical trial expenses related to ANX-530 and CoFactor and a $284,000 decrease in expenses related to external preclinical activities. We expect our R&D expenses to remain a significant component of our operating expenses in the future as we continue to, among other things, devote resources to manufacturing and related validation activities for ANX-530 and ANX-514, prepare for our potential NDA filing for ANX-530 and continue our registrational bioequivalence clinical study of ANX-514.

Selling, General and Administrative Expenses. SG&A expenses decreased by $444,000, or 16%, to $2.4 million for the three months ended March 31, 2008, compared to $2.8 million for the comparable period in 2007. The decrease was due to a $274,000 decrease in consulting fees related to market research and brand name development for ANX-530 and a $213,000 decrease in patent application costs. We anticipate increases in SG&A expenses as we prepare for the commercialization of ANX-530 and potentially pursue the development and commercialization of other product candidates.

Interest Income. Interest income decreased by $323,000, or 52%, to $299,000 for the three months ended March 31, 2008, compared to $622,000 for the comparable period in 2007. The decrease was primarily attributable to lower invested balances.

Net Loss. Net loss was $5.9 million, or $0.07 per share, for the three months ended March 31, 2008, compared to a net loss of $5.1 million, or $0.06 per share, for the comparable period in 2007.

Liquidity and Capital Resources

Since our inception we have funded our operations primarily through sales of our equity securities. As of March 31, 2008, we had cash and cash equivalents and short-term investments in securities totaling $28.8 million, compared to $33.5 million as of December 31, 2007. The decrease in cash and investments in securities was attributed to cash used for operations. As of March 31, 2008, we had $20.3 million in cash and cash equivalents and $8.5 million in short-term investments in securities.

Operating Activities. Net cash used in operating activities was $4.8 million for the three months ended March 31, 2008, compared to $4.6 million for the comparable period in 2007. The increase in net cash used in operating activities was due to decreases in licensing revenue and interest income.

Investing Activities. Net cash provided by investing activities was $10.3 million for the three months ended March 31, 2008, compared to net cash used in investing activities of $467,000 for the comparable period in 2007. Net cash provided by investing activities in the three months ended March 31, 2008 was primarily attributable to proceeds from sales and maturities of short-term investments in securities, net of purchases of short-term investments in securities.

Financing Activities. There were no financing activities in the three months ended March 31, 2008 and 2007.

Accrued Compensation and Payroll Taxes. Accrued compensation and payroll taxes were $1.2 million at March 31, 2008, compared to $623,000 at December 31, 2007, an increase of $559,000, or 90%. The increase was primarily due to a $228,000 increase in bonus accrual, a $164,000 increase in accrued compensation related to merit increases and timing of our payroll practices and a $164,000 increase in accrued severance payments related to our separation with our former president and chief medical officer in January 2008.

Management Outlook

We believe that cash, cash equivalents, and short-term investments of approximately $28.8 million at March 31, 2008 should be sufficient to sustain our operations for at least the next year. However, in order to maintain sufficient cash and investments to fund future operations longer term, and to continue developing our existing product candidates at the levels we believe optimizes their value, we may need or choose to seek additional capital in 2008 through collaborations, licensing arrangements or other strategic transactions, public or private sales of our equity securities, and/or debt financings. The balance of securities available-for-sale under our existing shelf registration was approximately $60.0 million as of March 31, 2008, but we may be subject to limitations with respect to the number of securities we can sell under this shelf registration. If we are unable to raise capital as needed to fund future operations, then we may defer or abandon one or more of our R&D programs and may need to take additional cost-cutting measures. Our ability to timely raise capital on commercially reasonable terms may be limited by requirements, rules and regulations of the Securities and Exchange Commission and the American Stock Exchange.

We have held discussions with, and intend to continue to seek, potential partners regarding certain of our product candidates, though some of our product candidates could take several more years of development before they reach the stage of being partnerable with other companies on terms that we believe are appropriate. If we successfully consummate a partnering deal, we may be entitled to upfront or license fees and milestone payments; however, any such fees and payments will depend on successfully consummating a deal and achieving milestones under such arrangements.

For information regarding the risks associated with our need to raise capital to fund our ongoing and planned operations and limitations on our ability to do so, see Item 1A of Part II, “Risk Factors,” in this report and Item 1A of Part I, “Risk Factors,” in our annual report on Form 10-K for the year ended December 31, 2007.

Recent Accounting Pronouncements

See Note 7, “Recent Accounting Pronouncements,” of the Notes to the Condensed Consolidated Financial Statements (unaudited) in this report for a discussion of recent accounting announcements and their effect, if any, on us.

Forward Looking Statements

This Quarterly Report on Form 10-Q, particularly in Item 2 "Management's Discussion and Analysis of Financial Condition and Results of Operations," includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements, other than statements of historical fact, are statements that could be deemed forward-looking statements, including, but not limited to, statements regarding business strategy, expectations and plans, our objectives for future operations, including product development, and our future financial position. When used in this report, the words "believe," "may," "could," "will," "estimate," "continue," "anticipate," "intend," "expect," "indicate" and similar expressions are intended to identify forward-looking statements.

We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to certain risks and uncertainties that could cause our actual results to differ materially from those expressed or implied in these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in Item 1A of Part II, "Risk Factors," in this report and Item 1A of Part I, "Risk Factors," in our annual report on Form 10-K for the year ended December 31, 2007, and those discussed in other documents we file with the Securities and Exchange Commission. Except as required by law, we do not intend to update these forward-looking statements publicly or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this report and in the documents incorporated in this report may not occur and actual results could differ materially and adversely from those anticipated or implied in such forward-looking statements. Accordingly, readers are cautioned not to place undue reliance on such forward-looking statements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are not subject to any meaningful market risk related to foreign currency exchange rates, commodity prices or similar market risks. Because substantially all of our expenses and capital purchasing activities are transacted in U.S. dollars, our exposure to foreign currency exchange rates is immaterial. However, as described below, we are sensitive to interest rate fluctuations.

The primary objective of our investing activities is to preserve principal while maximizing the income we receive from our investments without significantly increasing the risk of loss. Some of the investable securities permitted under our cash management policy may be subject to market risk for changes in interest rates. To mitigate this risk, we maintain a portfolio of cash equivalent and short-term investments in a variety of securities which may include investment grade commercial paper, money market funds, government debt issued by the United States of America, state debt, certificates of deposit and investment grade corporate debt. Presently, we are exposed to minimal market risks associated with interest rate changes because of the relatively short maturities of our investments and we do not expect interest rate fluctuations to materially affect the aggregate value of our financial instruments. We manage our sensitivity to these risks by maintaining investment grade short-term investments. Our cash management policy does not allow us to purchase or hold derivative or commodity instruments or other financial instruments for trading purposes. Additionally, our policy stipulates that we periodically monitor our investments for adverse material holdings related to the underlying financial solvency of the issuer. As of March 31, 2008, our investments consisted mostly of cash, commercial paper and U.S. government debt. Our results of operations and financial condition would not be significantly impacted by either a 10% increase or decrease in interest rates due mainly to the short-term nature of our investment portfolio. We have not used derivative financial instruments in our investment portfolio. Additionally, we do not invest in foreign currencies or other foreign investments.

Item 4. Controls and Procedures

Evaluation of disclosure controls and procedures

As of the end of the period covered by this report, we conducted an evaluation, under the supervision and with the participation of our principal executive officer and principal financial officer, of the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based on this evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms and is accumulated and communicated to our management, including our principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the period covered by this report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

In the normal course of business, we may become subject to lawsuits and other claims and proceedings. Such matters are subject to uncertainty and outcomes are often not predictable with assurance.

On October 11, 2007, we filed a demand for arbitration against Theragenex (doing business as TRx Pharma, LLC and/or TRx Pharmaceuticals, LLC) and David M. Preston, founder, Chairman, President and Chief Executive Officer of Theragenex in his individual capacity as the alter ego of Theragenex, seeking damages of up to $10 million with respect to breach of the license agreement, dated October 20, 2006, between us and Theragenex. We terminated the license agreement in August 2007 as a result of Theragenex's breach. In accordance with the terms of the license agreement, we filed our demand with the American Arbitration Association and requested that the hearing take place in San Diego, California. On November 8, 2007, Theragenex responded to our demand, asserting numerous affirmative defenses counterclaiming intentional misrepresentation, negligent misrepresentation and rescission and seeking a refund of its $500,000 payment, plus interest, rescission of the license agreement and that we pay its reasonable attorneys fees and costs associated with the action. Also on November 8, 2007, Mr. Preston objected to his participation and being named as a respondent in the arbitration. We believe the likelihood of an unfavorable outcome as a result of Theragenex's counterclaims is remote. Unless we earlier settle or otherwise determine not to pursue the matter, we expect an arbitration hearing date in the fourth quarter of 2008. We are unable to predict the outcome of our claim against Theragenex and the amount that we could receive, if any, from the arbitration proceedings.

Item 1A. Risk Factors

An investment in our securities involves a high degree of risk. You should consider carefully the risks and uncertainties described under Item 1A of Part I of our annual report on Form 10-K for the year ended December 31, 2007, which is incorporated by reference into this report. The risks described in our annual report have not materially changed.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Submission of Matters to a Vote of Security Holders

None.

Item 5. Other Information

None.

Item 6. Exhibits

An Exhibit Index has been attached as part of this report and is incorporated herein by reference.

Signatures

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

ADVENTRX Pharmaceuticals, Inc.

Date: May 12, 2008

By: /s/ Evan M. Levine
Evan M. Levine
Chief Executive Officer and President
(Principal Executive Officer)

Date: May 12, 2008

By: /s/ Mark N.K. Bagnall
Mark N.K. Bagnall
Chief Financial Officer and Executive Vice President
(Principal Financial and Accounting Officer)

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Exhibit Index

Exhibit	Description
10.1#(1)	Letter agreement regarding terms of separation with James A. Merritt, dated February 4, 2008
10.2 (2)	Second Amendment to Rights Agreement, dated as of February 25, 2008, among the registrant and the Icahn Purchasers (as defined therein)
10.3#(1)	Form of Stock Option Agreement under the 2005 Equity Incentive Plan (for director option grants beginning in 2008)
10.4#	Form of Stock Option Agreement under the 2005 Equity Incentive Plan (for option grants to employees approved in March 2008)
10.5#	2008 Incentive Plan
31.1	Certification of chief executive officer pursuant to Rule 13a-14(a)/15d-14(a)
31.2	Certification of chief financial officer pursuant to Rule 13a-14(a)/15d-14(a)
32.1*	Certification of chief executive officer and chief financial officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

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* This certification is being furnished solely to accompany this report pursuant to 18 U.S.C. 1350, and are not being filed for purposes of Section 18 of the Securities Exchange Act of 1934 and are not to be incorporated by reference into any filing of the registrant, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

\# Indicates management contract or compensatory plan

(1) Filed with the registrant's Annual Report on Form 10-K on March 17, 2008 (SEC file number 001-32157-08690952)

(2) Filed with the registrant's Current Report on Form 8-K on February 25, 2008 (SEC file number 001-32157-08638638)

Exhibit 10.4

Stock Option Agreement

ADVENTRX Pharmaceuticals, Inc., a Delaware corporation (the "***Company***"), and the undersigned person ("***Optionee***") have entered into this Stock Option Agreement (this "***Agreement***") effective as of the Grant Date set forth below. The Company has granted to Optionee the option (the "***Option***") to purchase the number of shares (the "***Shares***") of common stock, par value $0.001 per share, of the Company ("***Common Stock***") set forth below at the per Share purchase price (the "***Exercise Price***") set forth below, pursuant to the terms of this Agreement. The Option was granted under the Company's 2005 Equity Incentive Plan (the "***Plan***").

Optionee Name:	_____
Grant Date:	MM/DD/YYYY
Vesting Commencement Date:	MM/DD/YYYY
Shares:	X,XXX
Exercise Price:	$X.XX

1. **Terms of Plan.** All capitalized terms used in this Agreement and not otherwise defined shall have the meanings ascribed thereto in the Plan. Optionee confirms and acknowledges that Optionee has received and reviewed copies of the Plan and the Information Statement, dated _____, with respect to the Plan. Optionee and the Company agree that the terms and conditions of the Plan are incorporated in this Agreement by this reference.

2. **Nature of the Option.** The Option has been granted as an incentive to Optionee's Continuous Service, and is in all respects subject to such Continuous Service and all other terms and conditions of this Agreement. The Option is intended to be an [Incentive/Nonstatutory] Option within the meaning of the Plan.

3. **Vesting and Exercise of Option.** The Option shall vest and become exercisable during its term in accordance with the following provisions:

(a) **Vesting and Right of Exercise.**

(i) The Option shall vest and become exercisable with respect to one-fifth of the Shares at the first anniversary of the Vesting Commencement Date set forth in the preamble of this Agreement and as to one-fifth of the Shares on each anniversary of the Vesting Commencement Date thereafter until all of the Shares have vested, subject to Optionee's Continuous Service.

(ii) In the event of Optionee's death, disability or other termination of Optionee's Continuous Service, the Option shall be exercisable in the manner and to the extent provided in Section 6.3 of the Plan.

(iii) No fraction of a Share shall be purchasable or deliverable upon exercise of the Option, but in the event any adjustment hereunder of the number of Shares shall cause such number to include a fraction of a Share, such number of Shares shall be rounded down to the nearest smaller whole number of Shares.

(b) **Method of Exercise.** In order to exercise any portion of the Option which has vested, Optionee shall notify the Company in writing of the election to exercise such vested portion of the Option and the number of Shares in respect of which the Option is being exercised, by executing and delivering the Notice of Exercise of Stock Option in the form attached hereto as Exhibit A (the "***Exercise Notice***"). The certificate or certificates representing Shares as to which the Option has been exercised shall be registered in the name of Optionee.

(c) **Restrictions on Exercise.**

(i) Optionee may exercise the Option only with respect to Shares that have vested in accordance with Section 3(a) of this Agreement.

(ii) Optionee may not exercise the Option if the issuance of the Shares upon such exercise or the method of payment of consideration for such Shares would constitute a violation of any applicable federal or state securities law or other law or regulation.

(iii) The method and manner of payment of the Exercise Price will be subject to the rules under Part 221 of Title 12 of the Code of Federal Regulations as promulgated by the Federal Reserve Board if such rules apply to the Company at the date of exercise.

(iv) As a condition to the exercise of the Option, the Company may require Optionee to make any representation or warranty to the Company at the time of exercise of the Option as in the opinion of legal counsel for the Company may be required by any applicable law or regulation, including the execution and delivery of an appropriate representation statement. Accordingly, the stock certificate(s) for the Shares issued upon exercise of the Option may bear appropriate legends restricting transfer.

(v) Optionee may only exercise the Option upon, and the obligations of the Company under this Agreement to issue Shares to Optionee upon any exercise of the Option is conditioned on, satisfaction of all federal, state, local or other withholding tax obligations associated with such exercise (whether so required to secure for the Company an otherwise available tax deduction or otherwise) ("***Withholding Obligations***"). The Company reserves the right to require Optionee to remit to the Company an amount sufficient to satisfy all Withholding Obligations prior to the issuance of any Shares upon any exercise of the Option. Optionee

authorizes the Company to withhold in accordance with applicable law from any compensation payable to Optionee any amounts necessary to meet any Withholding Obligations.

4. **Non-Transferability of Option.** The Option may not be transferred in any manner other than by will or by the laws of descent and distribution. The terms of this Agreement shall bind the executors, administrators, heirs and successors of Optionee.

5. **Method of Payment.**

(a) Upon exercise, Optionee shall pay the aggregate Exercise Price of the Shares purchased by any of the following methods, or a combination thereof, at the election of Optionee:

(i) by cash;

(ii) by certified or bank cashier's check;

(iii) if shares of Common Stock are traded on an established stock market or exchange on the date of exercise, by surrender of whole shares of Common Stock having a Market Value equal to the portion of the Exercise Price to be paid by such surrender, provided that if such shares of Common Stock to be surrendered were acquired upon exercise of an Incentive Option, Optionee must have first satisfied the holding period requirements under Section 422(a)(1) of the Code; or

(iv) if shares of Common Stock are traded on an established stock market or exchange on the date of exercise, pursuant to and under the terms and conditions of any formal cashless exercise program authorized by the Company entailing the sale of the Stock subject to an Option in a brokered transaction (other than to the Company).

(b) If Optionee shall pay all or a portion of the aggregate Exercise Price due upon an exercise of the Option by surrendering shares of Common Stock pursuant to Section 5(a)(iii), then Optionee:

(i) shall accompany the Exercise Notice with a duly endorsed blank stock power with respect to the number of shares of Common Stock to be surrendered and shall deliver the certificate(s) representing such surrendered shares to the Company at its principal offices within two business days after the date of the Exercise Notice;

(ii) authorizes and directs the Secretary of the Company to transfer so many of the shares of Common Stock represented by such certificate(s) as are necessary to pay the aggregate Exercise Price in accordance with this Agreement;

(iii) agrees that Optionee may not surrender any fractional share as payment of any portion of the Exercise Price; and

(iv) agrees that, notwithstanding any other provision in this Agreement, Optionee may only surrender shares of Common Stock owned by Optionee as of the date of the Exercise Notice in the manner and within the time periods allowed under Rule 16b-3 promulgated under the Exchange Act.

6. **Adjustments to Option.** Subject to any required action by the stockholders of the Company, the number of Shares covered by the Option, and the Exercise Price, shall be proportionately adjusted in accordance with and pursuant to Section 8.1 of the Plan. Such adjustments shall be made by the Committee, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided in this Agreement, no issue by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number of Shares or the Exercise Price.

7. **Term of Option.** The Option may not be exercised more than 10 years after the Grant Date, and may be exercised during such term only in accordance with the terms of this Agreement.

8. **Not Employment Contract.** Nothing in this Agreement shall confer upon Optionee any right to continue in the employ of the Company or shall interfere with or restrict in any way the rights of the Company, which are hereby expressly reserved, to terminate Optionee's Continuous Service at any time for any reason whatsoever, with or without cause, subject to the provisions of applicable law.

9. **Tax Consequences Generally.** Optionee acknowledges that Optionee may suffer adverse tax consequences as a result of Optionee's exercise of the Option. Optionee acknowledges that the Company advises that Optionee consult with Optionee's tax advisers in connection with any exercise of the Option or disposition of the Shares receivable upon exercise of the Option. Optionee agrees that Optionee is not relying on the Company for any tax advice with respect to the acceptance or exercise of the Option, the disposition of any Shares Optionee may acquire upon exercise of the Option or otherwise. Any adverse consequences incurred by an Optionee with respect to the use of shares of Common Stock to pay any part of the aggregate Exercise Price or of any tax in connection with the exercise of an Option, including, without limitation, any adverse tax consequences arising as a result of a disqualifying disposition within the meaning of Section 422 of the Code shall be the sole responsibility of Optionee.

10. **Adjustments in Acquisitions.**

In accordance with the provisions of Section 8.2(a) of the Plan, the Option will Accelerate in full in the event of an Acquisition constituting a Change of Control if Optionee remains employed by the Company or one of its Affiliates as of the closing date of such Acquisition, and the Option is not assumed or replaced by the successor or acquiring entity or the entity in control of such successor or acquiring entity in accordance with Section 8.2 (referred to for purposes of this section as the "***Acquirer***"). Otherwise, the Option will not Accelerate in the event of an Acquisition. In this regard, if Optionee is offered employment or some other continuing role by or on behalf of the Acquirer, including but not limited to, continuing employment with the Company, and in connection therewith, the Acquirer offers to assume or replace the Option, the Option will not Accelerate if Optionee does not accept the offer.

If, following a Change of Control in which the Option has been assumed by the successor or acquiring entity as of the closing date of such Change of Control, in the event of Optionee's Involuntary Termination of employment within 24 months after the closing date of such Change of Control the vesting of the assumed Option shall be accelerated such that the Option will so vest as of the effective date of such Involuntary Termination with respect to all Shares that would have become vested during such 24-month period but for the Change of Control and Involuntary Termination (assuming Optionee's Continuous Service). An "***Involuntary Termination***" is one that occurs by reason of dismissal for any reason other than Misconduct or of voluntary resignation following: (i) a change in position that materially reduces the level of Optionee's responsibility, (ii) a material reduction in Optionee's base salary, or (iii) relocation by more than 50 miles; provided that (ii) and (iii) will apply only if Optionee has not consented to the change or relocation. "***Misconduct***" shall mean the commission of any act of fraud, embezzlement or dishonesty by Optionee, any unauthorized use or disclosure by such person of confidential information or trade secrets of the Company (or any Parent or Subsidiary), or any other intentional misconduct by such person adversely affecting the business affairs of the Company (or any Parent or Subsidiary) in a material manner. The foregoing definition shall not be deemed to be inclusive of all the acts or omissions which the Company (or any Parent or Subsidiary) may consider as grounds for the dismissal or discharge of Optionee.

11. Consent of Spouse/Domestic Partner. Optionee agrees that Optionee's spouse's or domestic partner's interest in the Option is subject to this Agreement and such spouse or domestic partner is irrevocably bound by the terms and conditions of this Agreement. Optionee agrees that all community property interests of Optionee and Optionee's spouse or domestic partner in the Option, if any, shall similarly be bound by this Agreement. Optionee agrees that this Agreement is binding upon Optionee's and Optionee's spouse's or domestic partner's executors, administrators, heirs and assigns. Optionee represents and warrants to the Company that Optionee has the authority to bind Optionee's spouse/domestic partner with respect to the Option. Optionee agrees to execute and deliver such documents as may be necessary to carry out the intent of this Section 11 and the consent of Optionee's spouse/domestic partner.

IN WITNESS WHEREOF, Optionee and the Company have entered into this Agreement as of the Grant Date.

ADVENTRX Pharmaceuticals, Inc.

[Optionee Name]

By: _____

Name: _____

Title: _____

Exhibit A

Notice of Exercise of Stock Option

I _____ (please print legibly) hereby elect to exercise the stock options(s) identified below (the "Option(s)") granted to me by **ADVENTRX Pharmaceuticals, Inc.** (the "Company") under its 2005 Equity Incentive Plan (the "Plan") with respect to the number of shares of Common Stock of the Company set forth below (the "Shares"). I represent that each Share is fully vested and exercisable and subject to the Option(s). I acknowledge and agree that my exercise of the Option(s) is subject to the terms and conditions of the Plan and the Stock Option Agreement(s) governing the Option(s).

1. _____ Shares at $ _____ per share (Grant date): _____
2. _____ Shares at $ _____ per share (Grant date): _____
3. _____ Shares at $ _____ per share (Grant date): _____
4. _____ Shares at $ _____ per share (Grant date): _____

I choose to pay for the exercise of the above option(s) as follows (please circle applicable item numbers):

1. **Cash**: $_____

2. **Check**: $_____ (please make checks payable to ADVENTRX Pharmaceuticals, Inc.)

3. **Surrender of _____ Shares**:

Please deliver the stock certificate(s) representing the Shares to (please print legibly):

_____

_____

_____

_____

Name: _____
(please print legibly)

Signature: _____

Date: _____

Phone No: _____

Exhibit 10.5

2008 INCENTIVE PLAN

This 2008 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 and specifically identified individual objectives that are consistent with and support near-term corporate objectives. This Plan is intended to create an environment that will focus Participants on the achievement of objectives. Since cooperation between departments and Participants will be required to achieve corporate objectives that represent a significant portion of the incentive awards available under this Plan, this Plan should foster improved teamwork and a more cohesive management team.

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;
- encourage increased teamwork among all departments within the Company;
- 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 year and until the time incentive awards are paid.

Plan Year

The plan year under this Plan is the calendar year beginning January 1, 2008 and ending December 31, 2008.

Plan Governance

This Plan will be governed by the compensation committee (the "Committee") of the Company's board of directors. The Committee will be responsible for determining and approving all awards to officers of the Company and the Company's chief executive officer will be responsible for determining and approving all awards to non-officer Participants.

Eligibility

All full time (40 hours/week) exempt employees at the Director level or higher are eligible to participate in this Plan. To be eligible to earn and receive an award under this Plan, such employee: (a) must have been in an eligible position (i.e., Director-level or higher) prior to October 1, 2008 and remain employed in such capacity through the end of the plan year and until incentive awards are paid; and (b) must not be on probation or under review or evaluation (or similar disciplinary action) at the time incentive award determinations are made or paid.

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 and Individual Objectives

This Plan calls for incentive awards based on the achievement of near-term corporate objectives by the Company and individual objectives by Participants.

Prior to May 31, 2008, the Company's chief executive officer will present to the Committee a list of proposed near-term corporate objectives for the plan year, which objectives are subject to review and approval by the Committee. Corporate objectives will be specific and measurable. Each Participant will then work with his/her supervisor to develop a list of individual objectives applicable to such Participant. The list of individual objectives for each non-officer Participant, must be approved by such Participant's department head (who must be an officer of the Company), in concert with the Company's chief executive officer. The list of individual objectives for each officer Participant must be approved by the Company's chief executive officer and the Committee. If an individual becomes eligible to participate in this Plan (whether as a result of retention, promotion or otherwise) following the development and approval of lists of individual objectives, such individual will promptly develop a list of individual objectives applicable to such individual that foster attaining approved near-term corporate objectives for the plan year and have such list approved as set forth above.

The relative weight between corporate and individual objectives of an incentive award will vary based on each Participant's level within the Company as follows:

Title (Level)	Corporate	Individual
Chief Executive Officer	100%	0%
Participants (other than the CEO)	75%	25%

If an approved corporate or individual objective becomes irrelevant or undesirable during the plan year or if a strategic change affects (one or more) objectives then, for each such affected objective

(a) with respect to corporate objectives, the Committee, after considering the recommendations of the Company's chief executive officer, may (i) substitute a new objective, (ii) eliminate the affected objective or (iii) take no action;

(b) with respect to individual objectives, (A) for non-officer Participants, the Company's chief executive officer, in concert with the Participant whose individual objectives were affected, may take one of the actions described in subsections (a)(i)-(iii) above, (B) for officer Participants, the Committee, after considering the recommendations of the Company's chief executive officer, may take one of the actions described in subsections (a)(i)-(iii) above.

Incentive Award Targets

Incentive awards generally will consist of cash-based compensation as described below, though the Committee has sole and absolute discretion to determine the composition of individual incentive award payments.

The target amount of a typical incentive award will be a specific dollar amount or determined by applying a “target percentage” to the base salary earned by a Participant during the plan year as an eligible employee in this Plan. The following amounts or target percentages will be used to determine the target award amounts:

Title (Level)	Amount or Target Percentage
Chief Executive Officer	$250,000
Executives (other than the CEO)	30%
Non-executive Vice Presidents	20%
Executive Directors, Senior Directors and Directors	15%

Award Multipliers

Corporate and individual “award multipliers” will be determined in the first quarter of 2009 and applied to Participants’ target amounts to establish the actual payout amounts of the incentive awards. A corporate award multiplier, which will be based on overall corporate performance against corporate objectives in place at the end of 2008 and the same for all Participants, will apply to the corporate performance component of each Participant’s target award amount. An individual award multiplier, which will be based on a Participant’s performance against that Participant’s objectives in place at the end of 2008 and separately determined for each Participant, will apply to the individual performance component of each Participant’s target award amount. These award multipliers may have the affect of increasing or decreasing a Participant’s actual payout amount versus his or her target amount.

The corporate award multiplier will be determined by the Committee. The individual award multiplier for each non-officer Participant will be determined by such Participant’s department head (who must be an officer of the Company), in concert with the Company’s chief executive officer. The individual award multiplier for each officer Participant will be determined by the Committee after considering the recommendations of the Company’s chief executive officer.

In determining the achievement of objectives and award multipliers, the Committee, the Company’s chief executive officer and the Company’s other officers, as applicable, will consider the achievement of objectives, the degree to which a 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, the Company’s chief executive officer or the Company’s other officers, as applicable, determine are appropriate to consider.

Award multipliers range from 0 to 1.50.

Payment of Incentive Awards

Payment of incentive awards will be made no later than March 14, 2009. Incentive award calculations for each Participant will be based on such Participant’s base salary earned during the plan year as an eligible employee in this Plan. A Participant has not earned and does not have any

right or entitlement to any award under this Plan until the time the award is actually paid to such Participant.

For clarification, Participants who have been in an eligible position for less than a year, but who hold an eligible position prior to October 1, 2008 (and remain continuously employed through the payment of awards) will receive a pro-rated award based on the portion of the plan year they held an eligible position. A Participant who is promoted during the plan year from one "target percentage" level to another will have his/her incentive award calculated using his/her base salary earned during the plan year as an eligible employee in this Plan and, if the promotion occurred prior to October 1, 2008, the calculation will be pro-rated, based on the number of months at each target percentage level. If the promotion occurred on or after October 1, 2008, the entire calculation will be based on the target percentage applicable prior to the promotion. A Participant who is demoted during the plan year from one target percentage level to another will have his/her incentive award calculated using his/her base salary earned during the plan year as an eligible employee in this Plan and, regardless of when the demotion occurred, the calculation will be based on the target percentage level applicable to such Participant at the end of the plan year. Other than as stated above, incentive awards will not be pro-rated for partial-year service.

Termination

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. If the employment of a Participant is terminated (whether voluntarily or involuntarily) during the plan year, or prior to payment of awards, whether or not an award payment is made will be at the absolute discretion of (a) the Committee, with respect to officer Participants (including the Company's chief executive officer), and (b) the Company's chief executive officer, with respect to non-officer Participants.

Absolute Right to Alter or Abolish this Plan; Disputes

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 year has commenced or is completed. No Participant shall earn or vest in any right to receive any award hereunder until actual payment of such award.

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.

Notwithstanding any other provision of this Plan, each Participant's award, if any, will be paid in a single sum not later than (i) the date that is the 15th day of the 3rd month following the end of the Participant's first taxable year in which the award is no longer subject to a substantial risk of forfeiture or (ii) the date that is the 15th day of the 3rd month following the end of the Company's first fiscal year in which the award is no longer subject to a substantial risk of forfeiture, whichever is later. 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.

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.

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Evan M. Levine, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of ADVENTRX Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 12, 2008

/s/ Evan M. Levine
Evan M. Levine
Chief Executive Officer and President
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Mark N.K. Bagnall, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of ADVENTRX Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 12, 2008

/s/ Mark N.K. Bagnall
Mark N.K. Bagnall
Chief Financial Officer and Executive Vice President
(Principal Financial and Accounting Officer)

Exhibit 32.1

**Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C.
Section 1350, As Adopted Pursuant To
Section 906 of The Sarbanes-Oxley Act of 2002**

In connection with the Quarterly Report of ADVENTRX Pharmaceuticals, Inc. (the "Company") on Form 10-Q for the quarter ended March 31, 2008, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Evan M. Levine, Chief Executive Officer and President of the Company, certify for the purposes of section 1350 of chapter 63 of title 18 of the United States Code that, to the best of my knowledge,

(i) the Report fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934, and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 12, 2008

/s/ Evan M. Levine
Evan M. Levine
Chief Executive Officer and President

In connection with the Quarterly Report of ADVENTRX Pharmaceuticals, Inc. (the "Company") on Form 10-Q for the quarter ended March 31, 2008, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Mark N.K. Bagnall, Chief Financial Officer and Executive Vice President of the Company, certify for the purposes of section 1350 of chapter 63 of title 18 of the United States Code that, to the best of my knowledge,

(i) the fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934, and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 12, 2008

/s/ Mark N.K. Bagnall
Mark N.K. Bagnall
Chief Financial Officer and Executive Vice President