

ADVENTRX PHARMACEUTICALS INC

Form S-1

July 24, 2009

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As filed with the Securities and Exchange Commission on July 24, 2009

**Registration No. 333-\_\_\_\_\_**

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

**FORM S-1  
REGISTRATION STATEMENT  
UNDER THE SECURITIES ACT OF 1933**

**ADVENTRX Pharmaceuticals, Inc.**  
*(Exact name of registrant as specified in its charter)*

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

**2834**  
*(Primary Standard Industrial  
Classification Code Number)*

**84-1318182**  
*(I.R.S. Employer  
Identification Number)*

**6725 Mesa Ridge Road,  
Suite 100,  
San Diego, CA 92121  
(858) 552-0866**  
*(Address, including zip code, and telephone number, including  
area code, of registrant's principal executive offices)*

**Brian M. Culley**  
**Chief Business Officer and Senior Vice President**  
**ADVENTRX Pharmaceuticals, Inc.**  
**6725 Mesa Ridge Road, Suite 100**  
**San Diego, CA 92121**  
**Telephone: (858) 552-0866**  
*(Name, address, including zip code, and telephone number,  
including area code, of agent for service)*

**With a Copy to:**  
**Michael S. Kagnoff**  
**DLA Piper LLP (US)**  
**4365 Executive Drive, Suite 1100**  
**San Diego, CA 92121**  
**Telephone: (858) 677-1400**  
**Facsimile: (858) 677-1401**

**Approximate date of commencement of proposed sale to the public:** As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective

registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective statement for the same offering

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 the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company

(Do not check if a smaller reporting company)

**CALCULATION OF REGISTRATION FEE**

| Title of Each Class of Securities<br>To Be Registered (1)                                      | Proposed Maximum<br>Aggregate<br>Offering Price (2) | Amount of<br>Registration Fee (2) |
|--|---|-----------------------------------|
| Convertible Preferred Stock, par value \$0.001 per share                                       | (3)   | (3)                               |
| Shares of Common Stock, par value \$0.001 per share, underlying<br>Convertible Preferred Stock | \$[____]  | \$[____]                          |
| Warrants   | (3)   | (3)                               |
| Shares of Common Stock, par value \$0.001 per share, underlying<br>Warrants                    | \$[____]  | \$[____]                          |
| Total  | \$10,000,000  | \$558                             |

(1) Any securities registered hereunder may be sold separately or together with other securities registered hereunder.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act. Pursuant to Rule 416 under the Securities Act of 1933, as amended (the

Securities Act ),  
the shares being  
registered  
hereunder  
include such  
indeterminate  
number of  
shares of  
common stock  
as may be  
issuable with  
respect to the  
shares being  
registered  
hereunder as a  
result of stock  
splits, stock  
dividends,  
anti-dilution  
provisions, or  
similar  
transactions. No  
additional  
registration fee  
is being paid for  
these shares.

- (3) Pursuant to Rule 457(g) under the Securities Act, no separate registration fee is required for the convertible preferred stock or the warrants because the registrant is registering these securities in the same registration statement as the underlying common stock to be offered pursuant thereto.

**The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as**

**amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.**

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The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

**SUBJECT TO COMPLETION, DATED JULY 24, 2009  
ADVENTRX PHARMACEUTICALS, INC.**

**[ ] Shares of [ ]% Series C Convertible Preferred Stock  
Warrants to Purchase up to [ ] Shares of Common Stock**

**[ ] Shares of Common Stock Underlying the Convertible Preferred Stock and the Warrants**

We are offering [ ] shares of our [ ]% Series C Convertible Preferred Stock, par value \$0.001 per share, and warrants to purchase up to [ ] shares of our common stock to purchasers in this offering. We are also offering an aggregate of [ ] shares of our common stock, par value \$0.001 per share, issuable upon conversion of the convertible preferred stock and exercise of the warrants. The convertible preferred stock and warrants will be sold in units, with each unit consisting of one share of convertible preferred stock and a warrant to purchase up to approximately [ ] shares of common stock. Subject to certain ownership limitations, the convertible preferred stock is convertible at any time at the option of the holder into shares of our common stock at a conversion price of \$[ ] per share and will accrue a [ ]% dividend until [ ]. The warrants are exercisable at any time after the six-month anniversary of their date of issuance and on or before the fifth anniversary of their initial exercise date at an exercise price of \$[ ] per share of common stock. In the event that the convertible preferred stock is converted at any time prior to [ ], we will pay to the holder of such converted convertible preferred stock an amount equal to the total dividend that would accrue on the preferred stock from the conversion date through [ ], or \$[ ] per \$1,000 in stated value of the shares of convertible preferred stock converted, less any dividend payments previously made with respect to such shares. Each unit will be sold at a negotiated price of \$1,000. Units will not be issued or certificated. The shares of convertible preferred stock and warrants are immediately separable and will be issued separately.

We will place [ ]%, or approximately \$[ ], of the gross proceeds in an escrow account, which amounts will be released to make the dividend and make-whole payments due on the convertible preferred stock.

Our common stock is listed on the NYSE Amex (formerly, the American Stock Exchange) under the symbol ANX. The last reported sale price of our common stock on the NYSE Amex on July 23, 2009 was \$0.14 per share. We do not intend to list the convertible preferred stock or warrants on any securities exchange.

**Investing in our securities involves a high degree of risk and purchasers of our securities may lose their entire investment. See Risk Factors beginning on page 7 of this prospectus for factors you should consider before buying our securities. You should carefully read this prospectus before you invest in our securities.**

|  | <b>Per<br/>Unit</b> | <b>Maximum<br/>Total</b> |
|--|---------------------|--------------------------|
| Public offering price  | \$ [ ]              | \$ [ ]                   |
| Placement agent's fees                                       | \$ [ ]              | \$ [ ]                   |
| Proceeds, before expenses, to ADVENTRX Pharmaceuticals, Inc. | \$ [ ]              | \$ [ ]                   |

We have retained Rodman & Renshaw, LLC as placement agent to use its reasonable best efforts to solicit offers to purchase our securities in this offering. The placement agent is not purchasing or selling any of the securities in this offering. There is no minimum amount of securities that must be sold as a condition to closing this offering. The offering will end on [ ], 2009. We expect that delivery of the securities being offered pursuant to this prospectus will be made to purchasers on or about [ ], 2009. We have agreed to indemnify the placement agent against some liabilities, including liabilities under the Securities Act of 1933, as amended, or the Securities Act, and to contribute to payments that the placement agent may be required to make in respect thereof. In consideration for its services, in addition to the cash fees set forth in the table above, we have agreed to issue to the placement agent five-year warrants to purchase up to an aggregate of [ ] shares of our common stock at an exercise price of \$[ ] per share. The placement agent warrants

are not covered by this prospectus.

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

**Rodman & Renshaw**

The date of this prospectus is \_\_\_\_\_, 2009.

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**You should rely only on the information contained in this prospectus and any free writing prospectus prepared by us or on our behalf. We have not authorized anyone to provide you with different or additional information. If anyone provides you with different or additional information, you should not rely on it. We are not making offers to sell, or seeking offers to buy, these securities in any state or other jurisdiction where the offers and sales are not permitted. The information contained in this prospectus is accurate only as of the date hereof, regardless of the time of delivery of this prospectus or of any sale of the securities offered hereby. Our business, financial condition, results of operations and prospects may have changed since the date of this prospectus.**

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Our trademark CoFactor® is registered in the United States Patent and Trademark Office (in the Supplemental Register) under Registration No. 2,946,934, for use in connection with chemotherapy modulators derived from folic acid. We are developing commercial names for our other product candidates. All other trademarks, service marks or trade names appearing in this prospectus, including but not limited to Navelbine® and Taxotere®, are the property of their respective owners. Use or display by us of other parties' trademarks, service marks, trade names, trade dress or products is not intended to and does not imply a relationship with, or endorsements or sponsorship of, us by the trademark, service mark, trade name, trade dress or product owners. As indicated in this prospectus, we have included market data and industry forecasts that were obtained from industry publications.

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**PROSPECTUS SUMMARY**

*This summary highlights selected information about us and this offering contained elsewhere in this prospectus and is qualified in its entirety by the more detailed information and financial statements contained elsewhere in this prospectus. It may not contain all of the information that is important to you. You should carefully read this entire prospectus, including the risks and uncertainties discussed under the heading Risk Factors below, our consolidated financial statements and the notes related thereto, our condensed consolidated financial statements and the notes related thereto, and the other documents included in or to which this prospectus refers, before making an investment decision. When used in this prospectus, the terms ADVENTRX, we, our, us and the Company refer to ADVENTRX Pharmaceuticals, Inc. and its subsidiaries, unless otherwise indicated or the context otherwise requires.*

**About ADVENTRX Pharmaceuticals, Inc.**

We are a development-stage biopharmaceutical company whose fundamental business is focused on in-licensing, developing and commercializing proprietary product candidates for the treatment of cancer. We seek to improve the performance and commercial potential of existing treatments by addressing limitations associated principally with their safety and use. We have devoted substantially all of our resources to research and development or to acquisition of our product candidates. We have not yet marketed or sold any products or generated any significant revenue.

Our lead product candidates, ANX-530 and ANX-514, are novel emulsion formulations of currently marketed chemotherapy drugs. We believe ANX-530 and ANX-514 may improve the safety of and have greater commercial potential than the currently marketed reference products, Navelbine and Taxotere, respectively, by:

Reducing the incidence and severity of adverse effects; and

Increasing their pharmacoeconomics and convenience to healthcare practitioners and patients

We have experienced significant operating losses in funding the development of our product candidates, accumulating operating losses totaling approximately \$133.9 million as of March 31, 2009, and we expect to incur substantial operating losses for the foreseeable future. Our independent auditor's report for the year ended December 31, 2008 includes an explanatory paragraph stating that our recurring losses from operations and negative cash flows raise substantial doubt about our ability to continue as a going concern. Our consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty. As of March 31, 2009, we had approximately \$5.3 million in cash and cash equivalents and \$2.8 million in working capital and we do not expect to generate positive net cash flows for the foreseeable future. Historically, we have funded our operations primarily through sales of our equity securities.

In March 2009, due to an immediate need to raise additional capital to continue our business, we suspended substantially all of our development activities and fundamental business operations to conserve cash while we evaluated strategic options, including the sale or exclusive license of one or more of our product candidate programs, a strategic business merger and other similar transactions, pursued financing alternatives and considered whether to liquidate our assets, wind-up our operations and distribute any remaining cash to our stockholders.

On June 12, 2009, we completed an approximately \$2.0 million registered direct equity financing involving the issuance of shares of our 0% Series A Convertible Preferred Stock, convertible into 18,036,199 shares of our common stock, and warrants to purchase up to 8,116,290 shares of our common stock. We received approximately \$1.7 million in net proceeds from the offering, after deducting the placement agent's fees and our estimated offering expenses. All of the shares of the 0% Series A Convertible Preferred Stock subsequently have been converted. We may receive up to approximately \$1.2 million of additional proceeds from the exercise of the warrants issued in that offering; however, those warrants are not exercisable until December 13, 2009 and their exercise is subject to certain ownership limitations.

Following the completion of the June 2009 financing, we re-started the final manufacturing activities related to submitting a New Drug Application, or NDA, for ANX-530 to seek approval of the United States Food and Drug Administration, or FDA, to market ANX-530 in the United States. In addition, we intend to continue to evaluate the data from our recently-completed bioequivalence study of ANX-514 and we plan to seek a meeting with the FDA to discuss the results. However, even following the offering described in this prospectus, we may need to raise substantial additional capital to fund our operations, including pre-launch activities for ANX-530, during the

regulatory review period of an ANX-530 NDA, if an ANX-530 NDA is submitted, launch activities for ANX-530, should an ANX-530 NDA be approved, and pre-NDA development activities for ANX-514.

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On July 6, 2009, we completed an approximately \$1.4 million registered direct equity financing involving the issuance of shares of our 5% Series B Convertible Preferred Stock, convertible into 9,504,189 shares of our common stock. We received approximately \$1.2 million in net proceeds from the offering, after deducting the placement agent fees and our estimated offering expenses. The convertible preferred shares were to accrue a 5% dividend until July 6, 2014, unless converted prior to such date. Upon any conversion of these preferred shares we were obligated to pay the holder an amount equal to the total dividend that would have otherwise accrued on the shares through July 6, 2014, less any dividend payment previously made with respect to such converted shares. Twenty-five percent, or \$340,250, of the gross proceeds of the financing were placed in an escrow account for payment of the dividend and conversion amounts payable on the 5% Series B Convertible Preferred Stock. All of the shares of the 5% Series B Convertible Preferred Stock subsequently have been converted and, pursuant to the terms of the 5% Series B Convertible Preferred Stock, we paid an aggregate of \$340,250 from the escrow account to the holder of the converted preferred shares in connection with such conversions.

### **Our Strategy**

Our goal is to be a leading biopharmaceutical company focused on in-licensing, developing and commercializing proprietary product candidates primarily for the treatment of cancer. Our near-term strategy is to obtain marketing approval of our lead product candidates and either partner or establish an infrastructure to support marketing, distributing and selling these products in the U.S. and abroad, should they be approved. Longer term, we intend to acquire additional product candidates that fit our areas of expertise. Specifically, we intend to:

Seek marketing-approval for ANX-530 and ANX-514 in the U.S. We are applying our operational experience to complete and seek approval of NDAs for ANX-530 and ANX-514 that we intend to submit to the FDA. In June 2009, we announced that an update regarding our NDA submission timeline will be provided as critical activities are completed; however, our goal is to submit the NDA around the end of 2009. In addition, we are continuing to evaluate the data from our recently-completed bioequivalence study of ANX-514 and plan to seek a meeting with the FDA to discuss the results.

Establish sales and marketing capabilities for ANX-530 and ANX-514 in the U.S. We intend to gain access to a substantial portion of the U.S. markets for ANX-530 and ANX-514 through a small, specialized sales force targeting distributors, provider networks and group purchasing organizations. For the near-term, we intend to maintain our current cost-efficient and flexible infrastructure by limiting the number of our full-time employees, engaging consultants on a project basis and outsourcing substantially all of our development activities to specialized vendors and contract development organizations. As we near regulatory approval of our product candidates, we plan to establish the infrastructure and relationships necessary to access what we believe will be concentrated markets for ANX-530 and ANX-514. However, we also remain receptive to partnering these product candidates in the U.S. if presented with terms that are sufficiently attractive.

Partner with leading organizations to develop and market ANX-530 and ANX-514 outside the U.S. or globally. We plan to draw on the development, regulatory and commercial expertise of other companies in instances where we believe our product candidates would benefit from such expertise. For example, for markets in which a large sales force is required to gain access, and for markets outside the U.S. and possibly within the U.S., we plan to commercialize products for which we obtain regulatory approval through a variety of licensing, collaboration and distribution arrangements with other pharmaceutical and biotechnology companies.

Pursue additional indications and commercial opportunities for ANX-530 and ANX-514 independently and through collaborations. We may increase the value of our product candidates by seeking approval for label changes and pursuing other commercial opportunities. For example, we or a future partner may conduct clinical and non-clinical studies that seek to differentiate ANX-530 and ANX-514 from Navelbine and Taxotere, respectively.

Acquire new and improved formulations of currently marketed products. We may pursue other currently approved products that we believe can be improved, the U.S. markets for which are concentrated and to which we can apply our operational experience.

**Risk Factors**

We face numerous risks and uncertainties that could materially and adversely affect our business, results of operations and financial condition, including the risk that we may not be able to raise sufficient capital to continue our business operations, which could result in our inability to continue as a going concern, and the risk that we may be unable to regain compliance with the continued listing requirements of the NYSE Amex, the securities exchange on which our common stock is listed, and our common

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stock may be delisted from that exchange. For additional discussion of the risk and uncertainties we face, see Risk Factors below.

**Corporate Information**

Our business was incorporated in Delaware in December 1995. In October 2000, we merged our wholly-owned subsidiary, Biokeys Acquisition Corp., with and into Biokeys, Inc. and changed our name to Biokeys Pharmaceuticals, Inc. In May 2003, we merged Biokeys, Inc., our wholly-owned subsidiary, with and into us and changed our name to ADVENTRX Pharmaceuticals, Inc. In July 2004, we formed a wholly-owned subsidiary, ADVENTRX (Europe) Ltd., in the United Kingdom primarily to facilitate conducting clinical trials in the European Union and to obtain favorable pricing for discussions with the European Medicines Agency. In April 2006, we acquired SD Pharmaceuticals, Inc. as a wholly-owned subsidiary.

Our executive offices are located at 6725 Mesa Ridge Road, Suite 100, San Diego, California 92121, and our telephone number is (858) 552-0866. Our corporate website is located at [www.adventrx.com](http://www.adventrx.com). Information on our website does not constitute part of this prospectus.

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**The Offering**

|   |  |
|---|--|
| Securities offered by us:                           | Up to [ ] shares of convertible preferred stock, par value \$0.001 per share;<br><br>[ ] shares of common stock issuable upon conversion of the convertible preferred stock;<br><br>Warrants to purchase up to [ ] shares of common stock; and<br><br>[ ] shares of common stock issuable upon exercise of the warrants.   |
| Common stock to be outstanding after this offering: | [ ] shares of common stock, or [ ] shares of common stock if the convertible preferred stock and warrants offered hereby are converted and exercised in full.  |
| Make-Whole Payment:                                 | In the event that the convertible preferred stock is converted at any time prior to [ ], we will pay to the holder an amount equal to \$[ ] per \$1,000 in stated value of the shares of convertible preferred stock converted, less any dividend payments previously made with respect to such shares.  |
| Escrow:   | An amount of the proceeds of the offering equal to the aggregate potential make-whole payment will be deposited with [ ], as escrow agent, to be held for a period of [ ] months from the date of closing. Amounts in the escrow account will be released to pay dividends and any make-whole payments with respect to convertible preferred stock converted during the escrow period. At the end of the escrow period, the amount remaining in the escrow account will be released to us. |
| Use of proceeds:                                    | We currently intend to use the net proceeds from this offering to fund activities relating to seeking FDA approval to market ANX-530 and ANX-514 in the United States, pre-launch activities related to commercialization of ANX-530, and for general corporate purposes, including working capital. Please see Use of Proceeds below.   |
| NYSE Amex symbol:                                   | ANX  |
| Risk factors:                                       | Investing in our securities involves a high degree of risk and purchasers of our convertible preferred stock and warrants and the underlying common stock may lose their entire investment. See Risk Factors below and the other information included elsewhere in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our securities.  |

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The number of shares of our common stock to be outstanding immediately after this offering is based on 117,792,960 shares of our common stock outstanding as of July 22, 2009. This number does not include, as of July 22, 2009:

5,973,884 shares of common stock issuable upon the exercise of outstanding stock options issued under our equity incentive plans prior to this offering, at a weighted average exercise price of \$0.82 per share;

650,000 shares of common stock issuable upon vesting and settlement of outstanding restricted stock units issued under our 2008 Omnibus Incentive Plan prior to this offering;

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10,568,772 shares of common stock available for future issuance under our 2008 Omnibus Incentive Plan;

20,304,118 shares of common stock issuable upon the exercise of outstanding warrants issued prior to this offering, at a weighted average exercise price of \$1.27 per share;

[ ] shares of common stock issuable upon exercise of warrants to be issued to the purchasers in this offering, at an exercise price of \$[ ] per share; and

[ ] shares of common stock issuable upon exercise of warrants to be issued to the placement agent for this offering, which are not covered by this prospectus, at an exercise price of \$[ ] per share.



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**Summary Financial Data**

The following tables set forth our summary statement of operations data for the fiscal years ended December 31, 2008 and 2007, for the three months ended March 31, 2009 and 2008, and for inception through March 31, 2009, and our summary balance sheet as of March 31, 2009. Our statement of operations data for the fiscal years ended December 31, 2008 and 2007 were derived from our audited consolidated financial statements included elsewhere in this prospectus. Our statement of operations data for the three months ended March 31, 2009 and 2008 and for inception through March 31, 2009 and our balance sheet data as of March 31, 2009 were derived from our unaudited condensed consolidated financial statements included elsewhere in this prospectus. In the opinion of management the unaudited condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and include all adjustments, consisting of only normal recurring adjustments, necessary for a fair presentation of our operating results and financial position for those periods and as of such dates. The results for any interim period are not necessarily indicative of the results that may be expected for a full year.

The results indicated below and elsewhere in this prospectus are not necessarily indicative of our future performance. You should read this information together with Capitalization, Management's Discussion and Analysis of Financial Condition and Results of Operations, our consolidated financial statements and related notes and our unaudited condensed consolidated financial statements and related notes included elsewhere in this prospectus.

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**RISK FACTORS**

*Investing in our securities involves a high degree of risk. You should carefully consider the risk factors discussed below, together with all the other information contained in this prospectus before deciding whether to purchase any of our securities. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities, and the occurrence of any of these risks might cause you to lose all or part of your investment.*

**RISKS RELATED TO OUR BUSINESS**

**Risks Related to Our Financial Performance, Operations and Ability to Continue as a Going Concern**

***We have incurred losses since our inception, we expect our operating expenses to continue to exceed our revenues for the foreseeable future and we may never generate revenues sufficient to achieve profitability.***

We are a development stage company and have not generated sustainable revenues from operations or been profitable since inception, and it is possible we will never achieve profitability. We have devoted our resources to developing a new generation of therapeutic products, but such products cannot be marketed until the regulatory process is completed and governmental approvals have been obtained. Accordingly, there is no current source of revenues from operations, much less profits, to sustain our present activities, and no revenues from operations will likely be available until, and unless, our product candidates are approved by the U.S. Food and Drug Administration, or FDA, or other regulatory agencies and successfully marketed, either by us or a partner, an outcome which we are not able to guarantee.

***Our financial resources are limited, we will require substantial additional funding to continue our operations and pursue our business strategy, and, if we are unable to raise sufficient additional capital, we may cease operating as a going concern and seek protection under the U.S. Bankruptcy Code or liquidate our assets.***

We have experienced significant operating losses in funding the development of our product candidates, accumulating operating losses totaling approximately \$141.7 million as of March 31, 2009, and we expect to continue to incur substantial operating losses for the foreseeable future, even if we or a future partner of ours is successful in advancing our product candidates to market. As of March 31, 2009, we had approximately \$5.3 million in cash and cash equivalents and \$2.8 million in working capital and we do not expect to generate positive net cash flows for the foreseeable future. Following the equity financing we completed in June 2009, in which we raised net proceeds of approximately \$1.7 million, we re-started the final manufacturing activities related to submitting a New Drug Application, or NDA, for ANX-530 to seek approval of the FDA to market ANX-530 in the United States, or U.S., and intend to continue to evaluate the data from our recently-completed bioequivalence study of ANX-514. We expect to incur substantial costs in connection with activities relating to submitting an NDA for ANX-530 and advancing ANX-530 toward commercialization in the U.S. We may also incur substantial costs in connection with evaluating, negotiating and consummating capital-raising and/or strategic or partnering transactions or liquidating our assets and winding-up our operations. We cannot currently predict the extent of these costs. Even if we incur costs in pursuing, evaluating and negotiating particular capital-raising and/or strategic or partnering transactions, our efforts may not prove successful. Excluding the potentially significant costs associated with evaluating, negotiating and consummating capital-raising and/or strategic or partnering transactions or seeking protection under the provisions of the U.S. Bankruptcy Code or liquidating our assets and winding-up our operations, we anticipate that our cash and cash equivalents as of March 31, 2009, together with the net proceeds from the equity financings we completed on June 12, 2009 and July 6, 2009, will be sufficient to permit us to conduct our business through at least September 30, 2009. We will need to raise substantial additional capital to continue our business after this period.

Our independent auditor's report for the year ended December 31, 2008 includes an explanatory paragraph stating that our recurring losses from operations and negative cash flows raise substantial doubt about our ability to continue as a going concern. If we are unable to obtain additional financing or consummate a strategic transaction on commercially reasonable terms, our business, financial condition and results of operations will be materially and adversely affected and we may be unable to continue as a going concern. If we are unable to continue as a going concern, we may have to seek protection under the provisions of the U.S. Bankruptcy Code or liquidate our assets and dissolve our company. In either case, we may receive less than the value at which those assets are carried on our financial statements. Based on our current working capital and estimated costs of implementing an orderly liquidation

of our assets, we do not expect that there will be material cash available for distribution to our stockholders.

We are seeking to raise additional capital as soon as possible in order to continue our business and our recently re-started development activities, including activities related to submitting an NDA to seek approval of the FDA for marketing ANX-530 in the U.S. Our future expenditures on our programs are subject to many uncertainties, including whether our product candidates will be

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developed with a partner or independently. Our future capital requirements will depend on, and could increase significantly as a result of, many factors, including:

the costs of seeking regulatory approval for our lead product candidates, ANX-530 and ANX-514, including any bioequivalence or clinical studies, process development, scale-up and other manufacturing activities, or other work required to achieve such approval, as well as the timing of such activities and approval;

the timing and terms of any collaborative, licensing and other strategic arrangements that we may establish;

the cost related to establishing or contracting for sales and marketing capabilities and other commercial capabilities;

the scope, prioritization and number of development and/or commercialization programs we pursue and the rate of progress and costs with respect to such programs;

the extent to which we will need to rebuild our workforce, which currently consists of two full-time employees, and the cost involved in hiring, training and incentivizing new employees;

the extent to which we invest in or acquire new technologies, products or businesses;

the effect of competing technological and market developments; and

the cost involved in establishing, enforcing or defending patent claims and other intellectual property rights.

We are seeking additional funding through public or private sales of our equity securities, debt financings, collaborations, licensing arrangements or other strategic transactions. However, we may not be able to obtain sufficient additional funding on satisfactory terms, if at all. We believe global economic conditions, including the recent credit crisis, have adversely impacted our ability to raise additional capital and may continue to do so.

In addition, we have been evaluating and continue to evaluate strategic options, including the sale or exclusive license of one or more of our product candidate programs, a strategic business merger and similar transactions. However, to date, discussions with potential strategic transaction partners have been unsuccessful, protracted or on terms that we determined were unacceptable.

***Our ability to raise capital may be limited by applicable laws and regulations.***

Although we have an effective shelf registration statement on Form S-3 that allows us to raise up to \$25 million from the sale of common stock, preferred stock, debt securities, warrants and units, we may not be able to use that registration statement to raise substantial additional capital, if any. Under current SEC regulations, we will not be eligible to use a registration statement on Form S-3 for primary offerings of our common stock or securities convertible into our common stock unless our common stock is listed and registered on a national securities exchange or unless the aggregate market value of our common stock held by non-affiliates reaches \$75 million or more. The NYSE Amex will review the appropriateness of continued listing of any issuer that falls below the exchange's continued listing standards and may, in its discretion, at any time, and without notice, suspend dealings in, or may remove any security from, listing privileges. The NYSE Amex will normally consider suspending dealings in, or removing from the list, securities of an issuer which has stockholders' equity of less than \$6.0 million if such issuer has sustained losses from continuing operations and/or net losses in its five most recent fiscal years. On June 1, 2009, we received notice from the NYSE Amex staff that, based on their review of our Form 10-Q for the period ended March 31, 2009, we are not in compliance with certain stockholders' equity continued listing standards. Specifically, the NYSE Amex staff noted that we are not in compliance with Section 1003(a)(ii) of the NYSE Amex Company Guide because we reported stockholders' equity of less than \$4,000,000 and losses from continuing operations and net losses in three of our four most recent fiscal years, or with Section 1003(a)(iii) of the Company Guide because we reported stockholders' equity of less than \$6,000,000 and losses from continuing operations and net losses in our five most recent fiscal years. In addition, the NYSE Amex staff notified us, in accordance with Section 1003(f)(v) of the

Company Guide, that it deems it appropriate for us to effect a reverse stock split of our common stock to address our low selling price per share, and that if a reverse stock split is not completed within a reasonable amount of time after June 1, 2009, the NYSE Amex may consider suspending dealings in, or removing from the list, our common stock. See the risk factor below headed, "We are currently not in compliance with NYSE Amex continuing listing standards and are at risk of being delisted from the NYSE Amex equities market," for additional information regarding the risk of our common stock being delisted from the NYSE Amex. If our common stock were delisted from the NYSE Amex, our ability to raise capital on terms and conditions we deem acceptable, if at all, may be materially impaired. Currently, we do not anticipate being eligible to register and list our common stock on any other national securities exchange.

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In addition, even if we maintain our listing with the NYSE Amex, under current SEC regulations, at any time during which the aggregate market value of our common stock held by non-affiliates, or public float, is less than \$75.0 million (calculated as set forth in Form S-3 and SEC rules and regulations), the amount we can raise through primary offerings of our securities in any twelve-month period using a registration statement on Form S-3 will be limited to an aggregate of one-third of our public float. As of July 22, 2009, our public float was approximately 109 million shares. Based on a market value of \$0.22 per share, which was the closing price of our common stock on June 11, 2009, a date within 60 days prior to the date hereof, the aggregate market value of our public float was approximately \$24 million. The value of one-third of that public float was approximately \$8 million; however, the market value of all securities sold by us under our Form S-3 registration statement in the past 12 months will be subtracted from that amount to determine any future amount we can raise using our Form S-3 registration statement. Alternative means of raising capital through sales of our securities, including through the use of a Form S-1 registration statement, may be more costly and time-consuming.

Even if we maintain our listing with the NYSE Amex, our ability to timely raise sufficient capital may be limited by the exchange's requirements relating to stockholder approval for transactions involving the issuance of our common stock or securities convertible into our common stock. For instance, the NYSE Amex requires that we obtain stockholder approval of any transaction involving the sale, issuance or potential issuance by us of our common stock (or securities convertible into our common stock) at a price less than the greater of book or market value, which (together with sales by our officers, directors and principal stockholders) equals 20% or more of our presently outstanding common stock, unless the transaction is deemed a public offering by the NYSE Amex staff. Based on our outstanding common stock as of July 22, 2009 and a closing price of \$0.13, which was the closing price of our common stock on July 22, 2009, we could not raise more than approximately \$2.8 million without stockholder approval, unless the transaction is deemed a public offering or does not involve the sale, issuance or potential issuance by us of our common stock (or securities convertible into our common stock) at a price less than the greater of book or market value. However, certain prior sales by us may be aggregated to any offering we may propose in the near-term, further limiting the amount we could raise in any future offering that is not deemed a public offering by the NYSE Amex and would involve the sale, issuance or potential issuance by us of our common stock (or securities convertible into our common stock) at a price less than the greater of book or market value.

Obtaining stockholder approval is a costly and time-consuming process. If we are required to obtain stockholder approval, we would expect to spend substantial additional money and resources. In addition, seeking stockholder approval would delay our receipt of otherwise available capital, which may materially and adversely affect our ability to continue as a going concern, and there is no guarantee our stockholders would ultimately approve a proposed transaction. A public offering under NYSE Amex rules typically involves broadly announcing the proposed transaction, which often times has the effect of depressing the issuer's stock price. Accordingly, the price at which we could sell our securities in a public offering may be less and the dilution existing stockholders experience may in turn be greater than if we were able to raise capital through other means.

***Raising additional capital may cause dilution to our existing stockholders, require us to relinquish proprietary rights or restrict our operations.***

We may raise additional capital at any time and may do so through one or more financing alternatives, including public or private sales of our equity securities, debt financings, collaborations, licensing arrangements or other strategic transactions. Each of these financing alternatives carries certain risks. Raising capital through the issuance of common stock may depress the market price of our stock and may substantially dilute our existing stockholders. If we instead seek to raise capital through strategic transactions, such as licensing arrangements or sales of one or more of our technologies or product candidates, we may be required to relinquish valuable rights. For example, any licensing arrangement would likely require us to share a significant portion of any revenues generated by our licensed technologies with our licensees. Additionally, the development of any product candidates licensed or sold to third parties will no longer be in our control and thus we may not realize the full value of any such product candidates. Debt financings could involve covenants that restrict our operations. These restrictive covenants may include limitations on additional borrowing and specific restrictions on the use of our assets, as well as prohibitions on our ability to create liens or make investments and may, among other things, preclude us from making distributions to stockholders (either

by paying dividends or redeeming stock) and taking other actions beneficial to our stockholders. In addition, investors could impose more one-sided investment terms and conditions on companies that have or are perceived to have limited remaining funds or limited ability to raise additional funds. As we continue to use our cash and cash equivalents to fund our operations, it will likely become increasingly difficult to raise additional capital on commercially reasonable terms, or at all.

***If we are unable to raise sufficient additional capital, we may be not be able to continue our recently re-started development programs or we may be forced to partner product candidates at inopportune times or pursue less-expensive but higher-risk development paths.***

In March 2009, we suspended substantially all of our development activities and fundamental business operations. Additionally,

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since October 2008, we have significantly reduced our workforce in order to provide additional time to consummate a strategic transaction or otherwise obtain financing. Following the equity financing we completed in June 2009, we re-started the final manufacturing activities related to submitting an NDA for ANX-530 and intend to continue to evaluate the data from our recently-completed bioequivalence study of ANX-514. However, even if we complete the offering described in this prospectus, we may need to raise substantial additional capital to fund our operations, including activities relating to the commercialization of ANX-530, if an NDA for ANX-530 is submitted and ANX-530 is approved by the FDA for marketing in the U.S., and activities relating to the development and regulatory review process and, ultimately, commercialization of ANX-514. If we are not able to raise adequate funds to continue our recently re-started development programs and operations at levels we believe would enable us to capitalize on our assets, we may have to abandon some or all of them altogether or attempt to continue our development and commercialization efforts by entering into arrangements with partners or others that, if available at all, may not be on favorable terms and may require us to relinquish some or all of our rights to our product candidates or the financial benefits thereof or we may determine to liquidate our assets and may receive less than the value at which those assets are carried on our financial statements.

To conserve funds, we may pursue less expensive but higher-risk development paths. For instance, we may limit our process development activities to the minimum we feel is sufficient to support our development and commercialization goals, in particular, with respect to ANX-530. Process development helps define the various parameters and specifications for manufacturing products at commercial-scale. Without comprehensive process development activities, we may lack the information necessary to develop an accurate validation plan to support an NDA and may be unable to successfully manufacture at commercial scale. If we are unable to validate the manufacturing processes included in an NDA, we may be required to amend the NDA, which could result in substantial delays in commercializing the subject drug, as well as call into question our ability to ultimately obtain marketing approval for that drug. In addition, we would expect to spend significant funds undertaking the activities necessary to support an amendment to an NDA.

***We may seek to merge with or be acquired by another company and that transaction may adversely affect our business and the value of our securities.***

Because of our limited ability to raise funds, including for the reasons noted above, we may seek to merge with another company with a stronger cash position, complementary work force or product candidate portfolio or for other reasons. We believe the market price for our common stock may not accurately reflect the value of our business. While we will continue to seek to maximize the value of our business to our stockholders, the most attractive option for doing so may require us to consummate a transaction involving an exchange of our common stock with that of another company.

There are numerous risks associated with merging or being acquired. These risks include, among others, incorrectly assessing the quality of a prospective acquirer or merger-partner, encountering greater than anticipated costs in integrating businesses, facing resistance from employees and being unable to profitably deploy the assets of the new entity. The operations, financial condition, and prospects of the post-transaction entity depend in part on our and our acquirer/merger-partner's ability to successfully integrate the operations related to our product candidates, business and technologies. We may be unable to integrate operations successfully or to achieve expected cost savings and any cost savings which are realized may be offset by losses in revenues or other charges to operations. As a result, our stockholders may not realize the full value of their investment.

***If we fail to maintain registration of the shares of common stock issued or issuable pursuant to the exercise of warrants we issued in our July 2005 private placement, we will be required to pay the holders of those securities liquidated damages, which could be material in amount.***

The terms of the securities purchase agreement that we entered into in connection with our July 2005 private placement require us to pay liquidated damages to the purchasers of those securities in the event any shares issued or issuable pursuant to the exercise of warrants we issued in the private placement cannot be resold pursuant to our registration statement on Form S-3 (No. 333-127857) filed with and declared effective by the SEC on September 2, 2005. We refer to this as a maintenance failure. For each 30-day period or portion thereof during which a maintenance failure remains uncured, we are obligated to pay each purchaser an amount in cash equal to 1% of the purchaser's



aggregate purchase price for any shares of common stock or shares of common stock issuable upon exercise of warrants then held by the purchaser (pro rated for any period less than a month), increasing by an additional 1% with regard to each additional 30-day period or portion thereof until the maintenance failure is cured. There is no cap with respect to the total amount of these liquidated damages. The aggregate gross proceeds from our July 2005 private placement were approximately \$20 million. We are required to maintain the registration statement until the earlier of the date (i) all of the securities issued in our July 2005 private placement have been resold and (ii) each purchaser can resell the securities pursuant to Rule 144 under the Securities Act of 1933, as amended, without regard to the adequate current public information, volume, manner of sale or notice filing restrictions. The amount of these liquidated damages could be substantial and could have a material adverse effect on our financial

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condition.

For additional information, see Note 11 of the Notes to Consolidated Financial Statements, Registration Payment Arrangement, of our annual report on Form 10-K for the year ended December 31, 2008.

***We may be unable to retain the services of key personnel, and, even if we are successful in raising additional funds to continue our business and recently re-started development activities, we may not be successful in rebuilding our workforce to carry out the development and commercialization activities necessary for our product candidates.***

We have only two full-time employees and we depend on the services of these employees to continue our business. We do not have a chief executive officer or chief financial officer. Our Chief Business Officer and Senior Vice President is currently acting as our interim principal executive officer and our General Counsel, Secretary and Vice President, Legal is currently acting as our interim principal financial and accounting officer. To the extent we are successful in raising additional funds to continue our business and further advance our product candidates toward commercialization, we may need to expand our managerial, financial, regulatory, research and development, manufacturing, commercial, quality, compliance and other resources in order to manage our operations, submit applications to and respond to inquiries from the FDA and, if approved, commercialize our products. We do not expect that our current management and personnel, systems and facilities will be adequate to support these activities.

The success of our business will depend, in part, on our ability to attract and retain highly qualified management, scientific and other personnel, and on our ability to develop and maintain important relationships with respected service providers and industry-leading consultants and advisors. Competition for these types of personnel and relationships is intense from numerous pharmaceutical and biotechnology companies, universities and other research institutions, particularly in the San Diego, California area. In connection with the cost-cutting measures we implemented in October 2008, January 2009 and March 2009, we eliminated, among others, our scientific staff and our manufacturing and regulatory personnel, who had a deep background in our product candidates and our research and development programs. Recruiting and retaining employees, including senior-level personnel, with relevant product development experience in cancer and process development experience with emulsified cytotoxic drugs may be costly and time-consuming. We have historically provided incentive compensation to our officers and employees in part through grants of stock options and, more recently, restricted stock units under our equity compensation plans. Decreases in the trading price of our common stock, however, have substantially reduced the value of equity compensation awards made to our officers and employees in prior years and such awards may not provide adequate compensation to retain such individuals. Our ability to provide competitive compensation to our officers and employees may also be adversely affected by our limited capital resources and anticipated need to raise substantial additional capital to continue our business. We cannot ensure that we will be able to retain existing employees or attract and retain additional skilled personnel on acceptable terms as a result of these factors and, accordingly, we may not achieve our development and commercialization goals.

***We have significant incentive and may, under certain circumstances, have significant severance and other obligations under agreements with our current officers.***

In July 2009, we adopted a 2009 mid-year incentive plan and a retention and severance plan, both of which apply to Mr. Culley and Mr. Keran, our two remaining employees. Under the incentive plan, each of Mr. Culley and Mr. Keran are eligible for incentive awards based upon the achievement of corporate performance objectives in effect at the end of 2009. Awards generally will be paid in cash. The potential award of each of Mr. Culley and Mr. Keran will be based 100% on our achievement of corporate objectives and the target award amount for each of them is \$150,000. The target amount of each award may be increased or decreased by multiplying the target amount by a corporate performance multiplier, as will be determined by the compensation committee of our board of directors in the first quarter of 2010. Award multipliers will range from zero to 1.5. Payment of awards under the incentive plan will be made after December 31, 2009 and on or before March 14, 2010. Under the retention plan, if the employment of either of our two remaining employees terminates at any time as a result of an involuntary termination, and such employee delivers and does not revoke a general release of claims, which will also confirm any post-termination obligations and/or restrictions applicable to such employee, such employee will be entitled to an amount equal to twelve (12) months of such employee's then-current base salary, less applicable withholdings, and an amount equal to the estimated cost of continuing such employee's health care coverage and the coverage of such employee's dependents

who are covered at the time of the involuntary termination under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, for a period equal to twelve (12) months. These severance benefits will be paid in a lump-sum on the date the general release of claims becomes effective. Our aggregate contractual obligation under the retention plan, including applicable payroll and employer taxes, is approximately \$650,000.

We believe these plans are necessary to incentivize and retain these key employees and reinforce their dedication to us during a period when they would otherwise likely seek alternative employment. Our contractual responsibility for our current and any future

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incentive and/or severance obligations may cause us to cease or curtail our operations at an earlier date than would otherwise be the case if we were not required to satisfy these obligations. In addition, part or all of the proceeds from a future capital raising transaction may be used to satisfy these obligations.

***The use of our net operating loss carryforwards may be limited.***

Net operating loss carryforwards may expire and not be used. As of December 31, 2008, we had generated federal net operating loss carryforwards of approximately \$90.4 million and state net operating loss carryforwards of approximately \$41.4 million. Federal net operating loss carryforwards have a 20-year carryforward period and begin to expire in 2020. State net operating loss carryforwards have a ten year carry forward period and begin to expire in 2012.

Pursuant to Section 382 of the Internal Revenue Code, annual use of our net operating loss carryforwards may be limited in the event a cumulative change in ownership of more than 50 percent occurs within a three-year period. We determined that, as of January 1, 2009, no such ownership change had occurred. However, recent and potential future financing events, including this offering, may cause changes in ownership under Section 382, which could cause our net operating loss carryforwards to be subject to limitations and restrictions. If a change in ownership were to occur, our net operating loss carryforwards could be eliminated or restricted. Inability to fully utilize our net operating loss carryforwards could have an adverse impact on our financial position and results of operations.

***If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results. As a result, current and potential investors could lose confidence in our financial reporting, which could harm our business and have an adverse effect on our stock price.***

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, we are required to annually furnish a report by our management on our internal control over financial reporting. Such report must contain, among other matters, an assessment by our principal executive officer and our principal financial officer on the effectiveness of our internal control over financial reporting, including a statement as to whether or not our internal control over financial reporting is effective as of the end of our fiscal year. This assessment must include disclosure of any material weakness in our internal control over financial reporting identified by management. In addition, under current SEC rules, we will be required to obtain an attestation from our independent registered public accounting firm as to our internal control over financial reporting for our annual report on Form 10-K for our fiscal year ending December 31, 2009. Performing the system and process documentation and evaluation needed to comply with Section 404 is both costly and challenging. We have in the past discovered, and may in the future discover, areas of internal controls that need improvement. For example, during the fourth quarter of 2008, we discovered that we did not correctly apply generally accepted accounting principles as they related to accounting for warrant liability because our accounting staff did not have adequate training or expertise, and determined that we had a material weakness in our internal control over financial reporting as of December 31, 2007. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. For a detailed description of this material weakness and our remediation of this material weakness, see Part II Item 9A(T) Controls and Procedures of our annual report on Form 10-K for the year ended December 31, 2008. If additional material weaknesses are identified in our internal control over financial reporting, neither our management nor our independent registered public accounting firm will be able to assert that our internal control over financial reporting and/or our disclosure controls and procedures are effective, and we could be required to further implement expensive and time-consuming remedial measures. We cannot be certain that any measures we take will ensure that we implement and maintain adequate internal control over financial reporting and that we will remediate the material weakness. As a result of recent reductions in our workforce and other personnel departures, we have experienced substantial turnover in our personnel responsible for performing activities related to our internal control over financial reporting. We have used third-party contractors to maintain effective internal control over financial reporting during this turn-over. However, if we fail to maintain effective internal control over financial reporting and/or disclosure controls and procedures we could lose investor confidence in the accuracy and completeness of our financial reports, which could have a material adverse effect on our stock price.

***Our operations might be interrupted by the occurrence of a natural disaster or other catastrophic event.***

Our corporate headquarters are located at a single business park in San Diego, California. Important documents and records, including copies of our regulatory documents and other records for our product candidates, are located at our facilities and we depend on our facilities for the continued operation of our business. Natural disasters and other catastrophic events, such as wildfires and other fires, earthquakes and extended power interruptions, which have impacted San Diego businesses in the past, and terrorist attacks, drought or flood, could significantly disrupt our operations and result in additional, unplanned expense. As a small company, we have

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limited capability to establish and maintain a comprehensive disaster recovery program and, accordingly, we do not have a formal business continuity or disaster recovery plan, and any natural disaster or catastrophic event could delay our development and commercialization efforts. Even though we believe we carry commercially reasonable insurance, we might suffer losses that exceed the coverage available under these insurance policies. In addition, we are not insured against terrorist attacks or earthquakes.

**Risks Related to Drug Development and Commercialization**

***Further testing of and/or validation of manufacturing processes with respect to our product candidates is required and regulatory approval may be delayed or denied, which would limit or prevent us from marketing our product candidates and significantly impair our ability to generate revenues.***

Human pharmaceutical products generally are subject to rigorous preclinical testing and clinical trials and other approval procedures mandated by the FDA and foreign regulatory authorities. Various federal and foreign statutes and regulations also govern or influence the manufacturing, safety, labeling, storage, record keeping and marketing of pharmaceutical products. The process of obtaining these approvals and the subsequent compliance with appropriate U.S. and foreign statutes and regulations is time-consuming and requires the expenditure of substantial resources. In addition, these requirements and processes vary widely from country to country.

To varying degrees based on the regulatory plan for each product candidate, the effect of government regulation and the need for FDA and other regulatory agency approval will delay commercialization of our product candidates, impose costly procedures upon our activities, and put us at a disadvantage relative to larger companies with which we compete. There can be no assurance that FDA or other regulatory approval for any product candidates developed by us will be granted on a timely basis, or at all. Even though the FDA has confirmed the appropriateness of a Section 505(b)(2) regulatory path for ANX-530 and ANX-514, the FDA's views may change. If the FDA requires the longer-term regulatory approval pathway associated with traditional drug development for ANX-530 and ANX-514, we may determine that the associated time and cost is not financially justifiable and, as a result, discontinue those programs. If we discontinue the development of one or both of these product candidates, our business and stock price may suffer.

In connection with any NDA that we file under Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, or FDCA, we may be required to notify third parties that we have certified to the FDA that any patents listed for the approved drug in the FDA's Orange Book publication are invalid or will not be infringed by the manufacture, use or sale of our drug. If the third-party files a patent infringement lawsuit against us within 45 days of its receipt of notice of our certification, the FDA is automatically prevented from approving our NDA until, subject to certain adjustments, the earliest of 30 months, expiration of the patent, settlement of the lawsuit or a decision in the infringement case that is favorable to us. Accordingly, we may invest significant time and expense in the development of our product candidates, including ANX-530 and ANX-514, only to be subject to significant delay and patent litigation before our products may be commercialized.

***We may not achieve our projected development and commercialization goals in the time frames we announce. Delays in the commencement or completion of pre/non-clinical testing, bioequivalence or clinical trials or manufacturing, regulatory or launch activities could result in increased costs to us and delay or limit our ability to generate revenues.***

We set goals for and make public statements regarding our estimates of the timing of the accomplishment of objectives material to successful development and commercialization of our product candidates. The actual timing of these events can vary dramatically due to any number of factors, including delays or failures in our pre/non-clinical testing, bioequivalence and clinical trials and manufacturing, regulatory and launch activities and the uncertainties inherent in the regulatory approval process. While our regulatory strategy for ANX-530 and ANX-514 has been to demonstrate the pharmacokinetic equivalence of each to the currently approved reference product in small, bioequivalence trials in humans, we may determine to conduct clinical studies to support uses in new indications or other label changes or for other reasons.

We conduct pre/non-clinical activities in the course of our development programs, including in connection with the manufacture of our product candidates, and in response to requests by regulatory authorities, as well as for other reasons. Delays in our pre/non-clinical activities could occur for a number of reasons, including:

delays in reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and contract manufacturing organizations, or CMOs, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and CMOs;

failures on the part of our CROs and CMOs in developing procedures and protocols or otherwise conducting activities on

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timeframes requested by us;

changes in regulatory requirements or other standards or guidance relating to preclinical testing, including testing of pharmaceutical products in animals;

a lack of availability of animals that are suitable for the types of studies we plan to conduct;

a lack of availability of capacity at our CMOs, or of the component materials, including the active pharmaceutical ingredient, or API, or related materials, including vials and stoppers, necessary to manufacture our product candidates or products; and

unforeseen results of preclinical or nonclinical testing that require us to amend study or test designs or delay future testing or bioequivalence or clinical trials and related regulatory filings.

In addition, we do not know whether planned bioequivalence or clinical trials will commence on time or be completed on schedule, if at all. The commencement and completion of trials can be delayed for a variety of reasons, including delays related to:

obtaining regulatory approval to commence a trial;

identifying appropriate trial sites and reaching agreement on acceptable terms with prospective CROs, trial sites and investigators, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs, trial sites and investigators;

manufacturing sufficient quantities of a product candidate;

obtaining institutional review board, or IRB, approval to conduct a trial at a prospective site;

recruiting and enrolling patients to participate in trials for a variety of reasons, including competition from other clinical trials for the same indication as our product candidates and the perception that the design of a trial or the proposed treatment regimen is less beneficial to patients than available alternatives; and

retaining patients who have initiated a trial but may be prone to withdraw due to side effects from the therapy, lack of efficacy or personal issues, or who are lost to further follow-up.

For example, in October 2007, we announced results of our phase 2b clinical trial of ANX-510, or CoFactor, for the first-line treatment of metastatic colorectal cancer, which demonstrated that the CoFactor/5-FU arm did not demonstrate statistically significant improved safety in the trial's primary endpoint. In November 2007, we announced that we would discontinue enrolling patients in our phase 3 clinical trial of CoFactor for the first-line treatment of metastatic colorectal cancer and, in October 2008, we announced that we had discontinued active work on all product candidates other than ANX-530 and ANX-514, including CoFactor. In addition, in May 2009, we announced that we did not meet the primary endpoint in our bioequivalence study of ANX-514, resulting in additional uncertainty around the cost and timeline to obtaining FDA approval for that product candidate.

In addition, a trial may be suspended or terminated by us, the FDA or other regulatory authorities due to a number of factors, including:

failure to conduct the trial in accordance with regulatory requirements or the trial's protocol;

inspection of trial operations or trial sites by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;

unforeseen safety issues; or



lack of adequate funding to continue the trial.

Additionally, changes in regulatory requirements and guidance relating to clinical trials may occur and we may need to amend clinical trial protocols to reflect these changes. Amendments may require us to resubmit our clinical trial protocols to IRBs for reexamination or renegotiate terms with CROs, trial sites and clinical investigators, all of which may impact the costs, timing or successful completion of a clinical trial.

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There can be no assurance that our preclinical and nonclinical testing and bioequivalence and/or clinical trials will commence or be completed, that we will make regulatory submissions or receive regulatory approvals as planned or that we will be able to adhere to our current schedule for the development or commercialization of any of our product candidates. If we experience delays in completion of, or if we terminate, our bioequivalence or clinical trials or preclinical and nonclinical testing, the commercial prospects for our product candidates will be harmed, and our ability to generate product revenues will be delayed. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of bioequivalence or clinical trials or preclinical and nonclinical testing may also ultimately lead to the denial of regulatory approval of a product candidate. Even if we are able to ultimately commercialize our product candidates, other therapies for the same indications may have been introduced to the market and established a competitive advantage.

***Positive results in our preclinical testing and/or bioequivalence trials do not ensure that future bioequivalence or clinical trials will be successful or that our product candidates will receive the regulatory approvals necessary for their commercialization.***

Before obtaining regulatory approvals for the commercial sale of any of our product candidates, we must demonstrate through preclinical testing and bioequivalence or clinical trials that each product is safe and effective for use in each target indication. Success in preclinical testing and/or bioequivalence trials does not ensure that subsequent or large-scale trials will be successful. Additionally, throughout development, we must provide adequate assurance to the FDA and other regulatory authorities that we can consistently produce our product candidates in conformance with current good manufacturing practices, or cGMP, and other regulatory standards. Bioequivalence and clinical trial results are frequently susceptible to varying interpretations and regulatory authorities may disagree on what are appropriate methods for analyzing data, which may delay, limit or prevent regulatory approvals. For instance, with respect to our bioequivalence trial of ANX-530, the FDA may perform its pharmacokinetic equivalence analysis based a patient population other than the population on which we based our analysis, which may result in the FDA determining that ANX-530 and Navelbine are not bioequivalent, requiring that we evaluate additional patients, re-perform the study or take other remedial action. In addition, the FDA may inquire regarding the manufacturing source, in-process and product release specifications and overall uniformity of reference product used in the bioequivalence trial of ANX-530, particularly since it was conducted at sites in multiple countries, and we may be unable to provide documentation satisfactory to the FDA with respect to such reference product, which may result in the FDA requiring that we evaluate additional patients, re-perform the study or take other remedial measures. Further, the ANX-530 bioequivalence trial was open-label, meaning physician-investigators, as well as patients, may have been aware of which drug was being administered. There is a risk of investigator bias in reporting adverse events as a result of the study's open-label nature, including bias that increased the reporting of adverse events associated with Navelbine and/or that decreased the reporting of adverse events associated with ANX-530. With respect to ANX-514, despite positive preclinical testing that indicated pharmacokinetic equivalence between ANX-514 and the reference product, our bioequivalence trial of ANX-514 did not demonstrate pharmacokinetic equivalence between ANX-514 and the reference product based on benchmark regulatory standards.

The length of time necessary to complete bioequivalence or clinical trials and manufacturing development work and to submit an application for marketing approval for a final decision by a regulatory authority varies significantly and may be difficult to predict. In addition, delays or rejections may be encountered based upon changes in FDA policy for drug approval during the period of product development and FDA regulatory review of each submitted NDA. There is a significant risk that any of our product candidates could fail to show satisfactory results in human trials, as was the case in our bioequivalence study of ANX-514, or manufacturing development, and, as a result, we may not continue their development. A failure to obtain requisite regulatory approvals or to obtain approvals of the scope requested will delay or preclude us from marketing our products or limit the commercial use of the products, and would have a material adverse effect on our business, financial condition and results of operations.

***If any of our product candidates for which we receive regulatory approval do not achieve broad market acceptance (including as a result of failing to differentiate our products from competitor products or as a result of failing to obtain reimbursement rates for our products that are competitive from the healthcare provider's perspective), the revenues we generate from their sales will be limited and our business may not be profitable.***

Our success will depend in substantial part on the extent to which our products for which we obtain marketing approval from the FDA and comparable foreign regulatory authorities are accepted by the medical community and reimbursed by third-party payors, including government payors. The degree of market acceptance will depend upon a number of factors, including, among other things:

- our product's perceived advantages over existing treatment methods (including relative convenience and ease of administration and prevalence and severity of any adverse side effects);

- claims or other information (including limitations or warnings) in our product's approved labeling;

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reimbursement and coverage policies of government and other third-party payors;

pricing and cost-effectiveness;

in the U.S., the ability of group purchasing organizations, or GPOs (including distributors and other network providers), to sell our products to their constituencies;

the establishment and demonstration in the medical community of the safety and efficacy of our products and our ability to provide acceptable evidence of safety and efficacy;

availability of alternative treatments; and

the prevalence of off-label substitution of chemically equivalent products.

We cannot predict whether physicians, patients, healthcare insurers or maintenance organizations, or the medical community in general, will accept or utilize any of our products. If our products are approved but do not achieve an adequate level of acceptance by these parties, we may not generate sufficient revenues from these products to become or remain profitable. In addition, our efforts to educate the medical community and third-party payors regarding the benefits of our products may require significant resources and may never be successful.

Under our Section 505(b)(2) regulatory strategy for ANX-530 and ANX-514, because we anticipate submitting NDAs based on pharmacokinetic data, our ability to differentiate our products from competitor products will be limited unless the FDA allows us to include certain data in our products' labels. Even if our products demonstrate clinical or pharmacoeconomic benefits, we may be unable to market our products based on these benefits.

If we fail to obtain a unique Healthcare Common Procedure Coding System, or HCPCS, product code for ANX-530, it is unlikely we will be able to sell that product at a price that exceeds its manufacturing, marketing and distribution costs. Even if we obtain separate HCPCS codes for our products, if our products are perceived to provide little or no advantage relative to competitive products or for other reasons, we may be required to price our products at levels that do not cover our costs to manufacture, market and distribute the products or provide any profit, or to price our products at levels at which they are not competitive.

***We do not have manufacturing capabilities and are dependent on single source manufacturers and suppliers for certain of our product candidates and their component materials, and the loss of any of these manufacturers or suppliers, or their failure to provide us with an adequate supply of products or component materials on commercially acceptable terms, or at all, could harm our business.***

We do not have any manufacturing capability. We rely on third-party manufacturers and component materials suppliers for the manufacture of our product candidates for bioequivalence or clinical trial purposes and we anticipate establishing relationships with third-party manufacturers and component materials suppliers for the commercial production of our products. Currently we do not have any commercial supply agreements or commitments with our third-party manufacturers or component suppliers, and we cannot ensure that we will be able to establish relationships with these parties on commercially acceptable terms, or at all. If we fail to establish and maintain such relationships, we expect it would have a material and adverse effect on our operations. Even if we successfully establish relationships with third-party manufacturers and component suppliers on commercially acceptable terms, our manufacturers and suppliers may not perform as agreed or may terminate their agreements with us. Because many of our single source suppliers provide manufacturing services to a number of other pharmaceutical companies, our suppliers may experience capacity constraints or choose to prioritize one or more of their other customers over us. Any significant problem that our single source manufacturers or suppliers experience could delay or interrupt the supply to us of bioequivalence or clinical trial materials or products until the manufacturer or supplier cures the problem or until we locate an alternative source of supply, if an alternative source is available, and any such delay or interruption could materially and adversely affect our development and commercial activities and operations.

For instance, ANX-530 is an emulsified cytotoxic product that must be aseptically-filled. There are a limited number of CMOs capable and willing to manufacture this type of product at the commercial scale at which we

anticipate requiring in accordance with our marketing plans for ANX-530, which will make identifying and establishing short- or long-term relationships with willing manufacturers more difficult and provide them with substantial leverage over us in any negotiations. Furthermore, certain of the component materials of ANX-530 are available only from a particular supplier, and currently we do not have any short- or long-term agreements for the supply of those materials.

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Even if we successfully establish a long-term relationship with our current CMO for ANX-530 on commercially acceptable terms, our CMO may be unable to successfully and consistently manufacture ANX-530 at commercial scale. We and this manufacturer have limited experience manufacturing ANX-530. Because data from a single bioequivalence trial of ANX-530 may be sufficient to support an NDA for ANX-530, our and our current contract manufacturer's ability to gain experience manufacturing ANX-530, in particular at various scales, has been limited. If our current CMO is unable to manufacture ANX-530 successfully and consistently at commercial scale and within established parameters, we may be unable to validate our manufacturing process, even if the FDA otherwise would approve our NDA, and therefore unable to sell ANX-530. Our current CMO has similarly limited experience with ANX-514.

All manufacturers of our products and product candidates must comply with cGMP requirements enforced by the FDA through its facilities inspection program, as well as applicable requirements of foreign regulatory authorities. These requirements include quality control, quality assurance and the maintenance of records and documentation. Manufacturers of our products and product candidates may be unable to comply with these cGMP requirements and with other FDA, state and foreign regulatory requirements. While we or our representatives generally monitor and audit our manufacturer's systems, we have little control over our manufacturers' ongoing compliance with these regulations and standards. A failure to comply with these requirements may result in fines and civil penalties, suspension of production, suspension or delay in product approval, product seizure or recall, or withdrawal of product approval.

Furthermore, the manufacture of pharmaceutical products requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. Manufacturers of pharmaceutical products often encounter difficulties in production, particularly in scaling up initial production. These problems include difficulties with production costs and yields, quality control, including stability of the product candidate and quality assurance testing and shortages of qualified personnel.

If our manufacturers were to encounter any of these difficulties or otherwise fail to comply with their contractual obligations, our ability to provide product candidates to patients in our future bioequivalence or clinical trials may be jeopardized. Any delay or interruption in the supply of supplies could delay the completion of our future trials, increase the costs associated with maintaining our development programs and, depending upon the period of delay, require us to commence new trials at significant additional expense or terminate the trials completely. We cannot ensure that manufacturing or quality control problems will not arise in connection with the manufacture of our products or product candidates, or that third-party manufacturers will be able to maintain the necessary governmental licenses and approvals to continue manufacturing such products or product candidates. Any of the above factors could cause us to delay or suspend anticipated or on-going trials, regulatory submissions, required approvals or commercialization of our product candidates, entail higher costs or result in our being unable to effectively commercialize our products. Our dependence upon third parties for the manufacture of our products and product candidates may adversely affect our future costs and our ability to develop and commercialize our products and product candidates on a timely and competitive basis.

If any of our product candidates should be approved, any problems or delays experienced in their manufacturing processes may impair our ability to provide commercial quantities of the products, which would limit our ability to sell the products and would adversely affect our business. It could take significant time to redesign our manufacturing processes or identify alternative suppliers in response to problems we may encounter as we manufacture our products, if such alternative processes and suppliers are available at all. Even if we are able to identify alternative suppliers, they may be unwilling to manufacture our products on commercially reasonable terms. Neither ANX-530 nor ANX-514 have been manufactured at the scales we believe will be necessary to maximize their commercial value to us and, accordingly, we may encounter difficulties in production while scaling-up initial production and may not be successful at all in scaling-up initial production.

Any new supplier of products or component materials, including API, would be required to qualify under applicable regulatory requirements and would need to have sufficient rights under applicable intellectual property laws to the method of manufacturing such products or ingredients. The FDA may require us to conduct additional bioequivalence or clinical trials, collect stability data and provide additional information concerning any new supplier,

or change in a validated manufacturing process, before we could distribute products from that supplier or revised process. Obtaining the necessary FDA approvals or other qualifications under applicable regulatory requirements and ensuring non-infringement of third-party intellectual property rights could result in a significant interruption of supply and could require the new supplier to bear significant additional costs which may be passed on to us. For instance, with respect to ANX-530, the form of API used in the manufacture of ANX-530 for purposes of our bioequivalence study of ANX-530 will not be the same form of API used in the manufacture of ANX-530 for purposes of process validation batches or commercial supply. To ensure the comparability of the ANX-530 used in the bioequivalence study and the ANX-530 intended for commercial sale, FDA may require that we evaluate both forms of ANX-530 in additional patients, re-perform the bioequivalence study or take other remedial actions. We may have insufficient quantities of both forms of ANX-530 and could incur substantial cost and delay in acquiring such quantities, in addition to the time and expense associated with conducting the evaluation, re-performing the study or taking other remedial measures.

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***We rely in part on third parties to conduct our preclinical and nonclinical testing and bioequivalence and clinical studies and other aspects of our development programs and if those third parties do not satisfactorily perform their contractual obligations or meet anticipated deadlines, the development of our product candidates could be adversely affected.***

We do not employ personnel or possess the facilities necessary to conduct the activities associated with our programs, particularly since we implemented severe cost-cutting measures in late 2008 and early 2009. We engage consultants, advisors, CROs, CMOs and others to design and conduct preclinical and nonclinical tests and bioequivalence and clinical studies in connection with the research and development of our product candidates. As a result, many important aspects of our product candidates' development are outside our direct control. There can be no assurance that such third parties will perform all of their obligations under arrangements with us or will perform those obligations satisfactorily.

The CROs with which we contract for execution of our bioequivalence and clinical studies play a significant role in the conduct of the studies and subsequent collection and analysis of data, and we will likely depend on these and other CROs and clinical investigators to conduct our future bioequivalence or clinical studies or assist with our analysis of completed bioequivalence studies. Individuals working at the CROs with which we contract, as well as investigators at the sites at which our studies are conducted, are not our employees, and we cannot control the amount or timing of resources that they devote to our programs. If these CROs fail to devote sufficient time and resources to our studies, or if their performance is substandard, it will delay the approval of our applications to regulatory agencies and the introduction of our products. Failure of these CROs to meet their obligations could adversely affect development of our product candidates. Moreover, these CROs may have relationships with other commercial entities, some of which may compete with us. If they assist our competitors at our expense, it could harm our competitive position.

For instance, we lack the internal capabilities to fully analyze the data from our bioequivalence study of ANX-514 and will rely on multiple third-party consultants to help us interpret and understand the data. Because of the impact different analyses of the data may have on our business, we believe an employee likely would approach the data and analysis in a substantially more rigorous, thoughtful and creative manner than a consultant or contractor.

***We currently have no sales or marketing capability and our failure to develop these and related capabilities internally or contract with third parties to perform these activities successfully could delay and/or limit our ability to generate revenues in the event one or more of our product candidates obtains regulatory approval.***

We currently do not have sales, marketing or commercialization personnel. We have limited business development personnel. To commercialize our products, including ANX-530, we will have to acquire or develop sales, marketing and distribution capabilities, or rely on marketing partners or other arrangements with third parties for the marketing, distribution and sale of our products. There is no guarantee that we will be able to establish marketing, distribution or sales capabilities or make arrangements with third parties to perform those activities on terms satisfactory to us, or that any internal capabilities or third party arrangements will be cost-effective. The acquisition or development of a sales and distribution and associated regulatory compliance infrastructure will require substantial resources, which may divert the attention of our management and key personnel and negatively impact our product development efforts.

In addition, any third parties with which we establish marketing, distribution or sales arrangements may have significant control over important aspects of the commercialization of our products, including market identification, marketing methods, pricing, composition of sales force and promotional activities. If we retain third-party service providers to perform functions related to the sale and distribution of our products, key aspects of those functions that would be out of our direct control could include warehousing and inventory management, distribution, contract administration and chargeback processing, accounts receivable management and call center management. In this event, we would place substantial reliance on third-party providers to perform services for us, including entrusting our inventories of products to their care and handling. If these third-party service providers fail to comply with applicable laws and regulations, fail to meet expected deadlines, or otherwise do not carry out their contractual duties to us, or encounter natural or other disasters at their facilities, our ability to deliver product to meet commercial demand could be significantly impaired. In addition, we may use third parties to perform various other services for us relating to sample accountability and regulatory monitoring, including adverse event reporting, safety database management and



other product maintenance services. If the quality or accuracy of the data maintained by these service providers is insufficient, our ability to continue to market our products could be jeopardized or we could be subject to regulatory sanctions. We do not currently have the internal capacity to perform these important commercial functions, and we may not be able to maintain commercial arrangements for these services on reasonable terms, or at all. Even if we are successful in establishing and maintaining these arrangement, there can be no assurance that we will be able to control the amount and timing of resources that any third party may devote to our products or prevent any third party from pursuing alternative technologies or products that could result in the development of products that compete with, or the withdrawal of support for, our products.

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***If we receive regulatory approval for one or more of our product candidates, we may face competition from generic products, which could exert downward pressure on the pricing and market share of our products and limit our ability to generate revenues.***

Many of the currently marketed and anticipated products against which our product candidates may compete are, or we anticipate will be, available as generics. For instance, ANX-530 will compete against Navelbine, for which generic equivalents are already available. ANX-514 will compete against Taxotere. We anticipate that ANX-514 will also compete against other formulations of docetaxel and that generic Taxotere will enter the market in November 2013 or May 2014 (depending on whether a period of pediatric exclusivity is granted in the future). Even if we obtain unique HCPCS codes for our products, the existence of generic products could make it more difficult for our branded products, including ANX-530 and ANX-514, to gain or maintain market share and could cause prices for our products to drop, each of which could adversely affect our business.

We may also face competition for our products from lower priced products from foreign countries that have placed price controls on pharmaceutical products. Proposed federal legislative changes may expand consumers' ability to import lower priced versions of our and competing products from Canada. Further, several states and local governments have implemented importation schemes for their citizens, and, in the absence of federal action to curtail such activities, we expect other states and local governments to launch importation efforts. The importation of foreign products that compete with our own products could negatively impact our business and prospects.

***Even if we receive regulatory approval in the U.S. for ANX-530 and/or ANX-514, we will likely depend on a limited number of group purchasing organizations for retail distribution of these products, and if we subsequently lose any significant GPO relationship, our business could be harmed.***

Our current U.S. commercialization strategy for our lead emulsion formulations initially involves marketing and selling these products through a limited number of GPOs. Even if we are successful in securing relationships with these entities, the subsequent loss of any one or more of these GPO accounts or a material reduction in their participation could harm our business, financial condition or results of operations. In addition, we may face pricing pressure from these GPOs.

***Even if we receive regulatory approval for one or more of our product candidates, they may still face future development and regulatory difficulties that could materially and adversely affect our business, financial condition and results of operations and cause our stock price to decline.***

Even if initial regulatory approval is obtained, the FDA or a foreign regulatory agency may still impose significant restrictions on a product's indicated uses or marketing or impose ongoing requirements for potentially costly post-approval studies or marketing surveillance programs. Our product candidates will also be subject to ongoing FDA requirements related to the labeling, packaging, storage, advertising, promotion, record-keeping and submission of safety and other post-market information on the product. For instance, in September 2007, amendments to the FDCA were signed into law. These amendments significantly strengthen the FDA's regulatory authority over drugs, including new controls over the post-approval monitoring of drugs. The FDA may now require changes to approved drug labels, require post-approval clinical trials and impose distribution and use restrictions on certain drugs. In addition, approved products, manufacturers and manufacturers' facilities are subject to continuing regulatory review and periodic inspections. If previously unknown problems with a product are discovered, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, the FDA may impose restrictions on that product or us, including requiring withdrawal of the product from the market. If we or a CMO of ours fail to comply with applicable regulatory requirements, a regulatory agency may:

issue warning letters or untitled letters;

impose civil or criminal penalties;

suspend or withdraw regulatory approval;

suspend or terminate any ongoing bioequivalence or clinical trials;

refuse to approve pending applications or supplements to approved applications;

impose restrictions or affirmative obligations on our or our CMO s operations, including costly new manufacturing requirements;

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close the facilities of a CMO; or

seize or detain products or require a product recall.

***Even if one or more of our product candidates receive regulatory approval in the U.S., we may never receive approval or commercialize our products outside of the U.S., which would limit our ability to realize the full market potential of our product candidates.***

In order to market any products outside of the U.S., we must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. Approval procedures vary among countries and can involve additional product testing and validation and additional administrative review periods. The time required to obtain approval in other countries might differ from that required to obtain FDA approval. In particular, other countries may not have a comparable regulatory as is available under Section 505(b)(2) of FDCA. Even if a country did have a comparable procedure, that country may require a more robust data package than the pharmacokinetic data package that we intend to submit in support of NDAs for ANX-530 and ANX-514. The regulatory approval process in other countries may include all of the risks detailed above regarding FDA approval in the U.S., as well as other risks. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory process in others. Failure to obtain regulatory approval in other countries or any delay or setback in obtaining such approval could have the same adverse effects detailed above regarding FDA approval in the U.S. As described above, such effects include the risks that our product candidates may not be approved for all indications requested, which could limit the uses of our product candidates and have an adverse effect on product sales, and that such approval may be subject to limitations on the indicated uses for which the product may be marketed or require costly, post-marketing follow-up studies.

***Our product candidates may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval or commercialization.***

Undesirable side effects caused by our product candidates could interrupt, delay or halt bioequivalence or clinical trials and could result in the denial of regulatory approval by the FDA or other regulatory authorities for any or all indications, and in turn prevent us from commercializing our product candidates and generating revenues from their sale.

In addition, if any of our product candidates receive marketing approval and we or others later identify undesirable side effects caused by the product or the reference product:

regulatory authorities may require the addition of labeling statements, such as a black box warning or a contraindication;

regulatory authorities may withdraw their approval of the product;

we may be required to change the way the product is administered, conduct additional clinical trials or change the labeling of the product; and

our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the affected product or could substantially increase the costs and expenses of commercializing the product, which in turn could delay or prevent us from generating significant revenues from its sale.

### **Risks Related to Our Intellectual Property**

***Our success will depend on patents and other protection we obtain on our product candidates and proprietary technology.***

Our success will depend in part on our ability to:

obtain and maintain patent protection with respect to our products;

prevent third parties from infringing upon our proprietary rights;

maintain trade secrets;

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operate without infringing upon the patents and proprietary rights of others; and

obtain appropriate licenses to patents or proprietary rights held by third parties if infringement would otherwise occur, both in the U.S. and in foreign countries.

The patent and intellectual property positions of biopharmaceutical companies, including ours, are uncertain and involve complex legal and factual questions. There is no guarantee that we have or will develop or obtain the rights to products or processes that are patentable, that patents will issue from any pending applications or that claims allowed will be sufficient to protect the technology we develop or have developed or that is used by us, our CMOs or our other service providers. In addition, we cannot be certain that patents issued to us will not be challenged, invalidated, infringed or circumvented, including by our competitors, or that the rights granted thereunder will provide competitive advantages to us.

Furthermore, patent applications in the U.S. are confidential for a period of time until they are published, and publication of discoveries in scientific or patent literature typically lags actual discoveries by several months. As a result, we cannot be certain that the inventors listed in any patent or patent application owned by us were the first to conceive of the inventions covered by such patents and patent applications or that such inventors were the first to file patent applications for such inventions.

We may also rely on unpatented trade secrets and know-how and continuing technological innovation to develop and maintain our competitive position, which we seek to protect, in part, by confidentiality agreements with employees, consultants, collaborators and others. We also have invention or patent assignment agreements with our employees and certain consultants. There can be no assurance, however, that binding agreements will not be breached, that we will have adequate remedies for any breach, or that trade secrets will not otherwise become known or be independently discovered by competitors. In addition, there can be no assurance that inventions relevant to us will not be developed by a person not bound by an invention assignment agreement with us.

***Exclusivity for our emulsion-formulation product candidates may be limited because of the nature of patent protection available for these candidates.***

While the patent applications covering our emulsion-formulation product candidates, including ANX-530 and ANX-514, include product claims, they cover only specific formulations of the underlying chemical entity, or API, and not the API itself. Such product claims are not as strong as claims covering new APIs, which are widely viewed as the strongest form of intellectual property protection for pharmaceutical products, as they apply without regard to how the API is formulated or the method in which the API is used. A competitor may modify our formulations and obtain regulatory approval for products with the same API as our products. Such competitive products may not infringe the patents we hold covering our specific formulations of the API.

***If we are sued for infringing the proprietary rights of third parties, it will be costly and time consuming, and an unfavorable outcome would have an adverse effect on our business.***

Our commercial success depends on our ability and the ability of our CMOs and component suppliers to develop, manufacture, market and sell our products and product candidates and use our proprietary technologies without infringing the proprietary rights of third parties. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are or may be developing products. As the biotechnology and pharmaceutical industry expands and more patents are issued, the risk increases that our products and product candidates may give rise to claims that our products or product candidates infringe the rights of others. Because patent applications can take many years to publish and issue, there may be currently pending applications, unknown to us, that may later result in issued patents that our products, product candidates or technologies infringe, or that the process of manufacturing our products or any of their respective component materials, or the component materials themselves, infringe.

We or our CMOs or component material suppliers may be exposed to, or threatened with, future litigation by third parties having patent or other intellectual property rights alleging that our products, product candidates and/or technologies infringe their intellectual property rights or that the process of manufacturing our products or any of their respective component materials, or the component materials themselves, infringe their intellectual property rights. If one of these patents was found to cover our products, product candidates, technologies or their uses, or any of the

underlying manufacturing processes or components, we could be required to pay damages and could be unable to commercialize our products or use our technologies or methods unless we are able to obtain a license to the patent or intellectual property right. A license may not be available to us on acceptable terms, if at all. In addition, during litigation, a patent holder could obtain a preliminary injunction or other equitable remedy that could prohibit us from making, using or selling our products, technologies or methods.

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In connection with any NDA that we file under Section 505(b)(2) of the FDCA, we may be required to notify third parties that we have certified to the FDA that any patents listed for the approved drug in the FDA's Orange Book publication are invalid or will not be infringed by the manufacture, use or sale of our drug. If the third-party files a patent infringement lawsuit against us within 45 days of its receipt of notice of our certification, the FDA is automatically prevented from approving our Section 505(b)(2) NDA until, subject to certain adjustments, the earliest of 30 months, expiration of the patent, settlement of the lawsuit or a decision in the infringement case that is favorable to us. Accordingly, we may invest significant time and expense in the development of our product candidates, including ANX-514, only to be subject to significant delay and patent litigation before our product candidates may be commercialized.

There is a substantial amount of litigation involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries generally. If a third party claims that we or our CMOs or component material suppliers infringe its intellectual property rights, we may face a number of issues, including, but not limited to:

infringement and other intellectual property claims which, with or without merit, may be expensive and time consuming to litigate and may divert our management's attention from our core business;

substantial damages for infringement, including treble damages and attorneys' fees, which we may have to pay if a court decides that the product at issue infringes on or violates the third party's rights;

a court prohibiting us from selling or licensing the product unless the third party licenses its product rights to us, which it may not be required to do;

if a license is available from the third party, we may have to pay substantial royalties, fees and/or grant cross-licenses to our products; and

redesigning our products or processes so they do not infringe, which may not be possible or may require substantial funds and time.

No assurance can be given that patents do not exist, have not been filed, or could not be filed or issued, which contain claims covering our products, technology or methods or those of our CMOs or component material suppliers. Because of the number of patents issued and patent applications filed in our field, we believe there is a risk that third parties may allege they have patent rights encompassing our products, technology or methods or those of our CMOs or component material suppliers.

In addition, it may be necessary for us to enforce patents under which we have rights, or to determine the scope, validity and unenforceability of other parties' proprietary rights, which may affect our rights. There can be no assurance that our patents would be held valid by a court or administrative body or that an alleged infringer would be found to be infringing. The uncertainty resulting from the mere institution and continuation of any technology-related litigation or interference proceeding could have a material and adverse effect on us.

### **RISKS RELATED TO OUR INDUSTRY**

***We expect intense competition in the marketplace for all of our product candidates.***

The industry in which we operate is highly competitive and rapidly changing. If successfully developed and approved, all of our products will likely compete with existing and new products and therapies and our competitors may succeed in commercializing products more rapidly or effectively than us, which would have a material and adverse effect on our results of operations and financial condition. In addition, there are numerous companies with a focus in oncology and/or that are pursuing the development of pharmaceuticals that target the same diseases as are targeted by the products being developed by us or that focus on reformulating currently approved drugs. We anticipate that we will face intense and increasing competition in the future as new products enter the market and advanced technologies become available. There is no assurance that existing products or new products developed by competitors will not be more effective, or more effectively marketed and sold, than those we may market and sell. Competitive products may render our products and product candidates obsolete or noncompetitive.



For instance, numerous companies are focused on reformulating currently approved chemotherapeutic agents. In particular, the taxanes, the class of drugs of which Taxotere is a member, have experienced substantial commercial success, in part as a result of their effectiveness in treating a wide variety of cancers, which has generated significant interest in reformulating Taxotere and other taxanes. In addition to our approach of emulsifying docetaxel, other companies are pursuing alternative delivery vehicles, including

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the use of albumin nanoparticles, prodrugs, polyglutamates, analogs, co-solvents, liposomes and microspheres. Many of these or similar approaches could be applied to vinorelbine. Relative to our formulations, formulations based on one or more of these other methods may result in greater efficacy or safety, provide better drug delivery to tumor sites or otherwise increase benefits to patients and healthcare providers.

In particular, ANX-530 and ANX-514, if approved, may compete against Navelbine and Taxotere, respectively, as well as their generic equivalents and other formulations of vinorelbine and docetaxel. In addition to Navelbine, currently there are at least 6 generic versions of vinorelbine on the market. In addition, there is an oral formulation of vinorelbine approved for use in the European Union, or EU, against which we would compete if our emulsion formulation of vinorelbine were approved for use in the EU. In the U.S., in May 2010 (but subject to any period of pediatric exclusivity that may be granted in the future), patent protection ends for docetaxel and, in November 2013 (but subject to any period of pediatric exclusivity that may be granted in the future), patent protection ends for Taxotere. We are aware of two leading generics companies that each have developed or acquired a formulation of docetaxel and have certified that, after May 2010, their respective formulations of docetaxel will not infringe any unexpired Taxotere patents.

Under our current regulatory strategy, because we anticipate submitting Section 505(b)(2) NDAs with only bioequivalence data, the ability to differentiate our products from competitor products will be limited. Even if we believe our products demonstrate clinical or pharmacoeconomic benefits, we may be unable to market our products based on these benefits. If our products fail to obtain unique HCPCS codes, we may be required to price our products at levels that do not cover our costs to manufacture, market and distribute the products or provide any profit, or to price our products at levels at which they are not competitive.

Companies likely to have products that will compete with our product candidates have significantly greater financial, technical and human resources and are better equipped to develop, manufacture, market and distribute products. Many of these companies have extensive experience in preclinical testing and clinical trials, obtaining FDA and other regulatory approvals and manufacturing and marketing products and have products that have been approved or are in late-stage development and operate large, well-funded research and development programs.

Smaller companies may also prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical and biotechnology companies. Furthermore, academic institutions, government agencies and other public and private research organizations are becoming increasingly aware of the commercial value of their inventions and are actively seeking to commercialize the technology they have developed.

***We are subject to uncertainty relating to healthcare reform measures and reimbursement policies that, if not favorable to our products, could hinder or prevent our products' commercial success.***

Our ability to commercialize our products successfully will depend in part on the extent to which reimbursement for the costs of such products and related treatments will be available from government health administration authorities, private health insurers and other third-party payors. Significant uncertainty exists as to the reimbursement status of newly approved medical products. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare may adversely affect:

our ability to set a price we believe is fair for our products;

our ability to generate revenues or achieve or maintain profitability;

the future revenues and profitability of our potential customers, suppliers and collaborators; and

the availability to us of capital.

If we are successful in obtaining FDA approval for ANX-530, we will compete with Navelbine and several generic versions of Navelbine. Our ability to commercialize ANX-530 will depend in part on the extent to which governmental authorities, private health insurers and other organizations establish appropriate coverage and reimbursement levels for the cost of our products and related treatments. These payors are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement, particularly for new therapeutic

products or if there is a perception that the target indication of the new product is well-served by existing treatments. Accordingly, even if coverage and reimbursement are provided, market acceptance of our products would be adversely affected if the amount of coverage and/or reimbursement available for the use of our products proved to be unprofitable for healthcare providers or less profitable than alternative treatments.

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There have been federal and state proposals to subject the pricing of healthcare goods and services to government control and to make other changes to the U.S. healthcare system. While we cannot predict the outcome of current or future legislation, we anticipate, particularly given President Obama's focus on healthcare reform, that Congress and state legislatures will introduce initiatives directed at lowering the total cost of healthcare. In addition, in certain foreign markets, the pricing of drugs is subject to government control and reimbursement may in some cases be unavailable or insufficient. It is uncertain if future legislative proposals, whether domestic or abroad, will be adopted that might affect our product candidates or what actions federal, state, or private payors for healthcare treatment and services may take in response to any such healthcare reform proposals or legislation. Any such healthcare reforms could have a material and adverse effect on the marketability of any products for which we ultimately receive FDA or other regulatory agency approval.

***We face potential product liability exposure and, if successful claims are brought against us, we may incur substantial liability for a product or product candidate and may have to limit its commercialization. In the future, we anticipate that we will need to obtain additional or increased product liability insurance coverage and it is uncertain that such increased or additional insurance coverage can be obtained on commercially reasonable terms.***

Our business (in particular, the use of our product candidates in clinical trials and the sale of our products for which we obtain marketing approval) will expose us to product liability risks. Product liability claims might be brought against us by patients, health care providers, pharmaceutical companies or others selling our products. If we cannot successfully defend ourselves against these claims, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

decreased demand for our products or product candidates;

impairment of our business reputation;

withdrawal of bioequivalence or clinical trial participants;

costs of related litigation;

substantial monetary awards to patients or other claimants;

loss of revenues; and

the inability to commercialize our products and product candidates.

We maintain limited product liability insurance for our bioequivalence and clinical trials, but our insurance coverage may not reimburse us or may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses.

We intend to expand our insurance coverage to include the sale of commercial products if we obtain marketing approval of any of our product candidates, but we may be unable to obtain product liability insurance on commercially acceptable terms or may not be able to maintain such insurance at a reasonable cost or in sufficient amounts to protect us against potential losses. Large judgments have been awarded in class action lawsuits based on drugs that had unanticipated side effects. A successful product liability claim or series of claims brought against us could cause our stock price to fall and, if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

### **RISKS RELATED TO OUR COMMON STOCK**

***We are currently not in compliance with NYSE Amex continuing listing standards and are at risk of being delisted from the NYSE Amex equities market.***

Our common stock currently trades on the NYSE Amex. NYSE Amex will normally consider suspending dealings in, or removing from the list, securities of an issuer which has stockholders' equity of less than \$6.0 million if such issuer has sustained losses from continuing operations and/or net losses in its five most recent fiscal years. As of

March 31, 2009, our stockholders' equity was approximately \$3.0 million and we have incurred annual net losses since inception. In addition, NYSE Amex will normally consider suspending dealings in, or removing from the list, securities selling for a substantial period of time at a low price per share if the issuer fails to effect a reverse split of such stock within a reasonable time after being notified that the NYSE Amex deems such

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action to be appropriate under the circumstances. Since October 1, 2007 through the date hereof, the closing price of a share of our common stock has been less than \$1.00.

On June 1, 2009, we received notice from the NYSE Amex staff that, based on their review of our Form 10-Q for the period ended March 31, 2009, we are not in compliance with certain stockholders' equity continued listing standards. Specifically, the NYSE Amex staff noted that we are not in compliance with Section 1003(a)(ii) of the NYSE Amex Company Guide because we reported stockholders' equity of less than \$4,000,000 and losses from continuing operations and net losses in three of our four most recent fiscal years, or with Section 1003(a)(iii) of the Company Guide because we reported stockholders' equity of less than \$6,000,000 and losses from continuing operations and net losses in our five most recent fiscal years. In addition, the NYSE Amex staff notified us, in accordance with Section 1003(f)(v) of the Company Guide, that it deems it appropriate for us to effect a reverse stock split of our common stock to address its low selling price per share, and that if a reverse stock split is not completed within a reasonable amount of time after June 1, 2009, the NYSE Amex may consider suspending dealings in, or removing from the list, our common stock.

To maintain listing of our common stock on the NYSE Amex, the NYSE Amex required us to submit a plan by July 1, 2009, advising the exchange of the actions we have taken, or will take, to regain compliance with Sections 1003(a)(ii) and (iii) of the Company Guide by December 1, 2010. On July 1, 2009, we submitted a plan to attempt to resolve our listing deficiencies and regain compliance with the continued listing requirements. If the NYSE Amex accepts our plan, then we may be able to continue our listing during the plan period, up to December 1, 2010, during which time we will be subject to periodic reviews to determine whether we are making progress consistent with the plan. If the plan we submitted is not accepted by the NYSE Amex or, if the plan is accepted but the NYSE Amex determines that we are not making progress consistent with the plan or that we are not in compliance with all continued listing standards of the Company Guide by November 29, 2010, then we expect the NYSE Amex will initiate delisting proceedings.

As a result of the NYSE Amex's warning that if we do not complete a reverse stock split of our common stock to address its low selling price per share within a reasonable amount of time after June 1, 2009 it may consider suspending dealings in, or removing from the list, our common stock, our board of directors has called a special meeting of our stockholders to be held on August 25, 2009. We have recommended to our stockholders that at this special meeting they approve authorizing our board of directors to effect a reverse stock split in any ratio in the board's discretion that is not less than 2:1 nor greater than 50:1. If our stockholders do not provide this authorization, the NYSE Amex may subsequently notify us that it has determined to suspend dealings in, or remove from the list, our common stock.

The delisting of our common stock from the NYSE Amex would likely reduce the trading volume and liquidity in our common stock and may lead to further decreases in the trading price of our common stock. The delisting of our common stock may also materially impair our stockholders' ability to buy and sell shares of our common stock. In addition, the delisting of our common stock could significantly impair our ability to raise capital, which is critical to the continuation of our business.

***If our common stock were delisted and determined to be a penny stock, a broker-dealer may find it more difficult to trade our common stock and an investor may find it more difficult to acquire or dispose of our common stock in the secondary market.***

In addition, if our common stock were removed from listing with the NYSE Amex, it may be subject to the so-called "penny stock" rules. The SEC has adopted regulations that define a "penny stock" to be any equity security that has a market price per share of less than \$5.00, subject to certain exceptions, such as any securities listed on a national securities exchange. For any transaction involving a "penny stock," unless exempt, the rules impose additional sales practice requirements on broker-dealers, subject to certain exceptions. If our common stock were delisted and determined to be a "penny stock," a broker-dealer may find it more difficult to trade our common stock and an investor may find it more difficult to acquire or dispose of our common stock on the secondary market. Investors in penny stocks should be prepared for the possibility that they may lose their whole investment.

***The market price of our common stock has been and is likely to continue to be highly volatile.***

On October 1, 2007, the market price for our common stock dropped almost 80% following our announcement of the results of our phase 2b clinical trial of CoFactor for the first-line treatment of metastatic colorectal cancer. In addition, the market price for our common stock has historically been highly volatile, and the market for our common stock has from time to time experienced significant price and volume fluctuations that are unrelated to our operating performance. The market price of our common stock may fluctuate significantly in response to a number of factors, including:

the level of our financial resources and ability to continue as a going concern;

announcements of entry into or consummation of a financing or strategic transaction;

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any decision by us to liquidate our assets and wind-up operations;

changes in the regulatory status of our product candidates, including results of our bioequivalence and clinical trials and other research and development programs;

FDA or international regulatory actions and regulatory developments in the U.S. and foreign countries;

announcements of new products or technologies, commercial relationships or other events (including bioequivalence and clinical trial results and regulatory events and actions) by us or our competitors;

market conditions in the pharmaceutical, biopharmaceutical and biotechnology sectors;

developments concerning intellectual property rights generally or those of us or our competitors;

litigation or public concern about the safety of our products or product candidates;

changes in securities analysts' estimates of our financial performance or deviations in our business and the trading price of our common stock from the estimates of securities analysts;

events affecting any future collaborations, commercial agreements and grants;

fluctuations in stock market prices and trading volumes of similar companies;

sales of large blocks of our common stock, including sales by our executive officers, directors and significant stockholders or pursuant to shelf or resale registration statements that register shares of our common stock that may be sold by certain of our current or future stockholders;

discussion of us or our stock price by the financial and scientific press and in online investor communities;

additions or departures of key personnel; and

changes in third party reimbursement policies.

As evidenced by the October 1, 2007 decline, the realization of any of the foregoing could have a dramatic and adverse impact on the market price of our common stock. In addition, class action litigation has often been instituted against companies whose securities have experienced periods of volatility in market price. Moreover, regulatory entities often undertake investigations of investor transactions in securities that experience volatility following an announcement of a significant event or condition. Any such litigation brought against us or investigation involving our investors could result in substantial costs and a diversion of management's attention and resources, which could hurt our business, operating results and financial condition.

***Sales of substantial amounts of our common stock or the perception that such sales may occur could cause the market price of our common stock to drop significantly, even if our business is performing well.***

The market price of our common stock could decline as a result of sales by, or the perceived possibility of sales by, us or our existing stockholders of shares of our common stock. These sales might also make it more difficult for us to sell equity securities at a time and price that we deem appropriate. In addition, this shelf registration statement and our resale registration statements register a significant number of shares of our common stock, and securities convertible into our common stock, that may be sold by us or certain of our stockholders, which may increase the likelihood of sales by, or the perception of an increased likelihood of sales by, us or our existing stockholders of shares of our common stock.



*Anti-takeover provisions in our charter documents and under Delaware law may make an acquisition of us, which may be beneficial to our stockholders, more difficult, which could depress our stock price. Alternatively, prohibitions on anti-takeover provisions in our charter documents may restrict us from acting in the best interests of our stockholders.*

We are incorporated in Delaware. Certain anti-takeover provisions of Delaware law and our charter documents as currently in effect may make a change in control of our company more difficult, even if a change in control would be beneficial to our stockholders. Our bylaws limit who may call a special meeting of stockholders and establish advance notice requirements for

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nomination of individuals for election to our board of directors or for proposing matters that can be acted upon at stockholders' meetings. Delaware law also prohibits corporations from engaging in a business combination with any holders of 15% or more of their capital stock until the holder has held the stock for three years unless, among other possibilities, the board of directors approves the transaction. Our board of directors may use these provisions to prevent changes in the management and control of our company. Also, under applicable Delaware law, our board of directors may adopt additional anti-takeover measures in the future. In addition, provisions of certain compensatory contracts with our management, such as equity award agreements and retention and incentive agreements with our executive officers, may have an anti-takeover effect by resulting in accelerated vesting of outstanding equity securities held by these officers and cash payments upon termination without cause or involuntary termination following a change in control.

In connection with a July 2005 private placement, we agreed with the investors in that transaction that we would not implement certain additional measures that would have an anti-takeover effect. As a result, under our amended and restated certificate of incorporation, we are prohibited from dividing our board of directors into classes and adopting or approving any rights plan, poison pill or other similar plan or device. A classified board of directors could serve to protect our stockholders against unfair treatment in takeover situations, by making it more difficult and time-consuming for a potential acquirer to take control of our board of directors. A company may also adopt a classified board of directors to ensure stability in the board of directors and thereby improve long-term planning, which may benefit stockholders. A poison pill or similar plan or device may encourage potential acquirers to discuss their intentions with the board of directors of a company and avoid the time, expense and distraction of a hostile take-over. Any benefit to us and our stockholders from instituting a classified board or adopting or approving a poison pill or similar plan or device in these and other circumstances is unavailable.

***Because we do not expect to pay dividends with respect to our common stock in the foreseeable future, you must rely on stock appreciation for any return on your investment.***

We have paid no cash dividends on any of our common stock to date, and we currently intend to retain our future earnings, if any, to fund the development and growth of our business. As a result, with respect to our common stock, we do not expect to pay any cash dividends in the foreseeable future, and payment of cash dividends, if any, will also depend on our financial condition, results of operations, capital requirements and other factors and will be at the discretion of our board of directors. Furthermore, we are subject to various laws and regulations that may restrict our ability to pay dividends and we may in the future become subject to contractual restrictions on, or prohibitions against, the payment of dividends. Accordingly, the success of your investment in our common stock will likely depend entirely upon any future appreciation and there is no guarantee that our common stock will appreciate in value.

#### **RISKS RELATED TO THIS OFFERING**

***Since we have broad discretion in how we use the proceeds from this offering, we may use the proceeds in ways with which you disagree.***

Although we describe under the heading "Use of Proceeds" in this prospectus our currently intended use of the net proceeds from this offering, we cannot estimate the allocation of the net proceeds of this offering among those uses and we reserve the right to change the use of proceeds as a result of certain contingencies, including any future partnering or strategic transaction opportunity. Accordingly, our management will have significant flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management and our board of directors with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the net proceeds will be used in a way that does not improve our operating results or enhance the value of our common stock. In addition, if we are unable to obtain additional capital or complete a strategic transaction on a timely basis, net proceeds from this offering may be used for expenses related to seeking protection under the provisions of the U.S. Bankruptcy Code or conducting an orderly liquidation of our assets and winding up of our corporate affairs. In either case, you could lose part or all of your investment.

***Investors in this offering will pay a much higher price than the book value of our stock.***

The public offering price of the securities offered hereby is likely to be substantially higher than the book value per share of our common stock. Investors purchasing securities in this offering may, therefore, incur immediate dilution in

net tangible book value per share of the common stock issuable upon conversion or exercise of the securities purchased in this offering. See [Dilution](#) below for a more detailed discussion of the dilution you will incur in this offering.

*Provisions of the Delaware General Corporation Law may prohibit us from making dividend payments with respect to our Series C convertible preferred stock or make-whole payments that may be due to the holders of our Series C convertible preferred stock.*

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We are incorporated in the State of Delaware and are subject to the provisions of the Delaware General Corporation Law (the "DGCL"). Section 170 of the DGCL provides, among other things, that a Delaware corporation may declare and pay dividends upon shares of its capital stock out of its surplus, as defined in and computed in accordance with Sections 154 and 244 of the DGCL. As of the date hereof, we have sufficient surplus to make dividend payments with respect to the Series C convertible preferred stock to be issued hereunder, as well as sufficient surplus to make the make-whole payments that may be due to the holders of our Series C convertible preferred stock, should such make-whole payments be deemed a dividend under the DGCL. However, our surplus will decrease as we spend our capital on development and other operational activities, including the development and commercialization activities related to ANX-530 and ANX-514, unless our spending is offset by capital-raising transactions. If our surplus is less than then-due dividend payments, including make-whole payments if they are deemed a dividend under the DGCL, we will be prohibited by the DGCL from making the dividend or make-whole payment, which may constitute a violation of our certificate of incorporation or a breach of our contractual obligations to the holders of our Series C convertible preferred stock.

***There is no public market for the convertible preferred stock or the warrants being offered in this offering.***

There is no established trading market for the convertible preferred stock or the warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the convertible preferred stock or warrants on any securities exchange or automated quotation system. Without an active market, the liquidity of the convertible preferred stock and warrants will be limited.

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**SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus and the registration statement of which it forms a part, and any final or free writing prospectus, contain 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 our business strategy, expectations and plans, our objectives for future operations, including product development, and our future financial position. We use words such as goal, anticipate, believe, may, could, will, estimate, continue, anticipate, intend, expect, indicate and similar expressions to identify forward-looking statements. We base these forward-looking statements on our current expectations and projections about future events and 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, including our ability to satisfy our need for additional capital. These forward-looking statements are subject to risks and uncertainties that could cause our actual results to differ materially from those reflected in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in under Risk Factors above and Management's Discussion and Analysis of Financial Condition and Results of Operations below.

Any forward-looking statement speaks only as of the date on which it is made and, except as required by law, we do not intend to update any forward-looking statements publicly to reflect events or circumstances after the date on which such statement is made or to update the reasons actual results could differ materially from those anticipated in the forward-looking statements, even if new information becomes available in the future. You should not place undue reliance on any forward-looking statement. Before you invest in our common stock or securities convertible into or exercisable for our common stock, you should be aware that the occurrence of any of the events described under Risk Factors above or elsewhere in this prospectus could have a material adverse effect on our business, financial condition and results of operation. In such case, the trading price of our common stock could decline and you could lose all or part of your investment.

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**USE OF PROCEEDS**

We estimate that the net proceeds to us from the sale of the securities offered under this prospectus, after deducting placement agent's fees and our estimated offering expenses, will be approximately \$[ ] if we sell the maximum amount of convertible preferred stock and warrants offered hereby. Because there is no minimum offering amount required as a condition to closing this offering, we may sell less than all of the securities offered hereby, which may significantly reduce the amount of proceeds received by us.

We currently intend to use the majority of the net proceeds to fund activities necessary to advance ANX-530 toward commercialization in the U.S. should we submit an ANX-530 NDA and obtain FDA approval. We also intend to use net proceeds to fund continued evaluation of the data from our recently completed bioequivalence study of ANX-514 (docetaxel emulsion) and development activities necessary to advance our ability to submit an NDA for ANX-514, and for general corporate purposes. At this time we cannot estimate the allocation of the net proceeds of this offering among these anticipated uses. The amounts and timing of the expenditures may vary significantly depending on numerous factors, including our need for and ability to raise additional capital to advance ANX-530 toward commercialization. If we are unable to raise sufficient capital to fund continuation of the activities necessary to seeking FDA approval to market ANX-530 and ANX-514 and advancing those product candidates toward commercialization, we may cease operating as a going concern and seek protection under the provisions of the U.S. Bankruptcy Code or, if sufficient funds are available, conduct an orderly liquidation of our assets. We reserve the right to change the use of proceeds as a result of certain contingencies, such as those discussed above and any future opportunities to evaluate, negotiate and complete one or more strategic or partnering transactions. Accordingly, our management will have broad discretion in the application of the net proceeds of this offering. Pending use of the net proceeds, we intend to invest the net proceeds in money market accounts.

**Table of Contents****MARKET PRICE OF COMMON STOCK**

Our common stock trades under the symbol ANX on the NYSE Amex (formerly, the American Stock Exchange). The following table sets forth the high and low closing prices for our common stock, as reported by the NYSE Amex, for the periods indicated.

| <b>Period</b>  | <b>High</b> | <b>Low</b> |
|----------------|-------------|------------|
| <b>2009</b>    |             |            |
| First Quarter  | \$ 0.18     | \$ 0.09    |
| Second Quarter | \$ 0.22     | \$ 0.11    |
| <b>2008</b>    |             |            |
| First Quarter  | \$ 0.64     | \$ 0.36    |
| Second Quarter | \$ 0.54     | \$ 0.33    |
| Third Quarter  | \$ 0.38     | \$ 0.18    |
| Fourth Quarter | \$ 0.21     | \$ 0.07    |
| <b>2007</b>    |             |            |
| First Quarter  | \$ 2.84     | \$ 1.98    |
| Second Quarter | \$ 2.90     | \$ 2.31    |
| Third Quarter  | \$ 2.80     | \$ 2.07    |
| Fourth Quarter | \$ 0.88     | \$ 0.43    |

On July 22, 2009, the closing price of our common stock, as reported by the NYSE Amex, was \$0.13. As of July 22, 2009, we had approximately 165 holders of record of our common stock. We believe that the number of beneficial owners is substantially greater than the number of record holders because a large portion of our common stock is held of record through brokerage firms in street name.

**DIVIDEND POLICY**

We have never declared or paid any cash dividends on our common stock and do not anticipate declaring or paying any cash dividends on our common stock in the foreseeable future. Our 5% Series B Convertible Preferred Stock would have accrued cumulative dividends at a rate of 5% per annum until July 6, 2014, payable on a quarterly basis beginning on October 1, 2009. However, all of the shares of the 5% Series B Convertible Preferred Stock were converted into common stock prior to the initial dividend payment date. Pursuant to the terms of the 5% Series B Convertible Preferred Stock, in connection with conversion of the preferred shares, we paid an amount equal to \$250 per \$1,000 stated value of such converted shares, or an aggregate of \$340,250, in lieu of our dividend obligation. Such payments may be deemed dividends under the DGCL. Except for dividends, or amounts that may be deemed dividends, payable on our [ ]% Series C Convertible Preferred Stock offered hereby, we expect to retain all available funds and any future earnings to support operations and fund the development and growth of our business. Our board of directors will determine whether we pay and the amount of future dividends (including cash dividends), if any.

**Table of Contents****CAPITALIZATION**

The following table sets forth our capitalization as of March 31, 2009:  
on an actual basis;

on a pro forma basis to give effect to our issuance of 27,540,388 shares of common stock issued upon full conversion of the 1,993 shares of our 0% Series A Convertible Preferred Stock sold to investors in an approximately \$2.0 million convertible preferred stock and warrant financing we completed on June 12, 2009 and the 1,361 shares of our 5% Series B Convertible Preferred Stock sold to investors in an approximately \$1.4 million convertible preferred stock financing we completed on July 6, 2009; and

on a pro forma as adjusted basis to give effect to our sale of [ ] shares of our convertible preferred stock in this offering, or [ ] shares of common stock issuable upon conversion of the convertible preferred stock, at an assumed offering price of \$1,000 per share and conversion price of \$[ ] per share, less the placement agent's fees and our estimated offering expenses.

You should read this table in conjunction with the section of this prospectus entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and with our consolidated financial statements and the notes thereto and our unaudited interim condensed consolidated financial statements and the notes thereto, all of which is included elsewhere in this prospectus.

|  | <b>As of March 31, 2009</b> |                  |             |
|--|-----------------------------|------------------|-------------|
|  | <b>Actual</b>               | <b>Pro Forma</b> | <b>Pro</b>  |
|  | (unaudited)                 | (unaudited)      | Forma       |
|  | \$                          | \$               | As          |
|  |                             |                  | Adjusted    |
|  |                             |                  | (unaudited) |
| Preferred stock, \$0.001 par value; 1,000,000 shares authorized; 0 shares issued and outstanding at March 31, 2009, 1,993 0% Series A shares issued and 0 shares outstanding and 1,361 5% Series B shares issued and 0 shares outstanding pro forma, 1,993 0% Series A shares issued and 0 shares outstanding, 1,361 5% Series B shares issued and 0 shares outstanding, and [ ] [ ]% Series C shares issued and outstanding pro forma as adjusted | \$                          | \$               | [ ]         |
| Common stock, \$0.001 par value; 200,000,000 shares authorized; 90,252,572 shares issued and outstanding at March 31, 2009, 117,792,960 shares issued and outstanding pro forma, and [ ] shares issued and outstanding pro forma as adjusted   | 90,254                      | 117,793          | [ ]         |
| Additional paid-in capital   | 131,925,397                 | 135,179,099      | [ ]         |
| Deficit accumulated during the development stage   | (129,003,468)               | (129,715,898)    | [ ]         |
| Total stockholders' equity (deficit)   | 3,012,183                   | 5,580,995        | [ ]         |

The outstanding shares information in the table above excludes:

3,509,897 shares of common stock issuable upon the exercise of stock options issued under our equity incentive plans and outstanding as of March 31, 2009, at a weighted average exercise price of \$1.70 per share;



3,250,000 shares of common stock issuable upon vesting and settlement of restricted stock units outstanding as of March 31, 2009;

13,032,759 shares of common stock available for future issuance under our 2008 Omnibus Incentive Plan as of March 31, 2009;

13,373,549 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2009, at a

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weighted average exercise price of \$2.21 per share;

8,116,290 shares of common stock issuable upon the exercise of outstanding warrants issued to the purchaser in the convertible preferred stock and warrant financing we completed on June 12, 2009, at an exercise price of \$0.15 per share;

901,810 shares of common stock issuable upon the exercise of outstanding warrants issued to the placement agent in connection with the convertible preferred stock and warrant financing we completed on June 12, 2009, at an exercise price of \$0.15 per share;

475,209 shares of common stock issuable upon the exercise of outstanding warrants issued to the placement agent in connection with the convertible preferred stock financing we completed on July 6, 2009, at an exercise price of \$0.179 per share;

[ ] shares of our common stock issuable upon the exercise of warrants to be issued to the purchasers in this offering, at an exercise price of \$[ ] per share; and

[ ] shares of our common stock issuable upon the exercise of warrants to be issued to the placement agent in connection with this offering, at an exercise price of \$[ ] per share.

**Table of Contents****DILUTION**

If you invest in the securities being offered by this prospectus, you will suffer immediate and substantial dilution in the net tangible book value per share of common stock. Our net tangible book value as of March 31, 2009 was approximately \$2.8 million, or approximately \$0.03 per share of common stock. Net tangible book value per share is determined by dividing our net tangible book value, which consists of our total tangible assets less total liabilities, by the number of shares of our common stock outstanding on that date.

Dilution in net tangible book value per share represents the difference between the amount per share of common stock underlying the convertible preferred stock paid by purchasers in this offering and the net tangible book value per share of our common stock immediately after this offering. Without taking into account any other changes in the net tangible book value after March 31, 2009, other than to give effect to:

our receipt of the estimated proceeds from the sale of 1,993 shares of convertible preferred stock, or 18,036,199 shares of common stock issuable upon conversion of the convertible preferred stock at a conversion price of \$0.1105 per share, in our financing that closed on June 12, 2009, less the placement agent's fees and our estimated offering expenses,

our receipt of the estimated proceeds from the sale of 1,361 shares of convertible preferred stock, or 9,504,189 shares of common stock issuable upon conversion of the convertible preferred stock at a conversion price of \$0.1432 per share, in our financing that closed on July 6, 2009, less the placement agent's fees and our estimated offering expenses, and

our receipt of the estimated proceeds from the sale of [ ] shares of our convertible preferred stock in this offering, or [ ] shares of common stock issuable upon conversion of the convertible preferred stock, at an assumed offering price of \$1,000 per share and conversion price of \$[ ] per share, less the placement agent's fees and our estimated offering expenses,

our net tangible book value as of March 31, 2009, after giving effect to the items above, would have been approximately \$[ ] million, or approximately \$[ ] per share of common stock. This represents an immediate increase of \$[ ] in net tangible book value per share to our existing stockholders and an immediate dilution of \$[ ] per share to purchasers of securities in this offering. The following table illustrates this per share dilution:

|   |        |        |
|---|--------|--------|
| Assumed public offering price per share   |        | \$ [ ] |
| Net tangible book value per share as of March 31, 2009  | \$0.03 |        |
| Increase in net tangible book value per share attributable to offering closed June 12, 2009                               | \$0.01 |        |
| Increase in net tangible book value per share attributable to offering closed July 6, 2009                                | \$0.01 |        |
| Increase in net tangible book value per share attributable to this offering   | \$ [ ] |        |
| Pro forma net tangible book value per share as of March 31, 2009, after giving effect to offering closed on June 12, 2009 |        | \$0.04 |
| Pro forma net tangible book value per share as of March 31, 2009, after giving effect to offering closed on July 6, 2009  |        | \$0.05 |
| Pro forma net tangible book value per share as of March 31, 2009, after giving effect to this offering                    |        | \$ [ ] |
| Dilution in net tangible book value per share to new investors in this offering   |        | \$ [ ] |

The above table is based on 90,252,572 shares of our common stock outstanding as of March 31, 2009 (as adjusted for 18,036,199 shares of common stock issued upon conversion of the convertible preferred stock issued in our financing that closed on June 12, 2009, 9,504,189 shares of common stock issued upon conversion of the convertible preferred stock issued in our financing that closed on July 6, 2009, [ ] shares of common stock issuable upon conversion of the convertible preferred stock to be issued in this offering), and excludes:

3,509,897 shares of common stock issuable upon the exercise of stock options issued under our equity incentive plans and outstanding as of March 31, 2009, at a weighted average exercise price of \$1.70 per share;

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3,250,000 shares of common stock issuable upon vesting and settlement of restricted stock units outstanding as of March 31, 2009;

13,032,759 shares of common stock available for future issuance under our 2008 Omnibus Incentive Plan as of March 31, 2009;

13,373,549 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2009, at a weighted average exercise price of \$2.21 per share;

8,116,290 shares of common stock issuable upon the exercise of outstanding warrants issued to the purchaser in the convertible preferred stock and warrant financing we completed on June 12, 2009, at an exercise price of \$0.15 per share;

901,810 shares of common stock issuable upon the exercise of outstanding warrants issued to the placement agent in connection with the convertible preferred stock and warrant financing we completed on June 12, 2009, at an exercise price of \$0.15 per share;

475,209 shares of common stock issuable upon the exercise of outstanding warrants issued to the placement agent in connection with the convertible preferred stock and warrant financing we completed on July 6, 2009, at an exercise price of \$0.179 per share;

[ ] shares of our common stock issuable upon the exercise of warrants to be issued to the purchasers in this offering, at an exercise price of \$[ ] per share; and

[ ] shares of our common stock issuable upon the exercise of warrants to be issued to the placement agent in connection with this offering, at an exercise price of \$[ ] per share.

To the extent that any options or warrants are exercised, restricted stock units are settled, new options or other equity awards are issued under our 2008 Omnibus Incentive Plan, or we otherwise issue additional shares of common stock in the future, there will be further dilution to new investors.

**Table of Contents****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 our financial statements and related notes appearing elsewhere in this prospectus. 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.*

**Overview**

We are a development-stage biopharmaceutical company whose fundamental business is focused on in-licensing, developing and commercializing proprietary product candidates for the treatment of cancer. We seek to improve the performance and commercial potential of existing treatments by addressing limitations associated principally with their safety and use. We have devoted substantially all of our resources to research and development, or R&D, or to acquisition of our product candidates. We have not yet marketed or sold any products or generated any significant revenue. Our lead product candidates, ANX-530 and ANX-514, are novel emulsion formulations of currently marketed chemotherapy drugs.

We have incurred annual net losses since inception. We had a net loss of \$3.2 million in the first quarter of 2009, which included charges associated with our October 2008 and January and March 2009 reductions in force, and cash and cash equivalents of approximately \$5.3 million and working capital of \$2.8 million at March 31, 2009. These factors raise substantial doubt about our ability to continue as a going concern. Our unaudited condensed consolidated financial statements for the period ended and at March 31, 2009 have been prepared assuming we will continue as a going concern. This basis of accounting contemplates the recovery of our assets and the satisfaction of liabilities in the normal course of business and does not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that might be necessary should we be unable to continue as a going concern.

In March 2009, we announced that we and our wholly-owned subsidiary, SD Pharmaceuticals, Inc., entered into a license agreement with respect to ANX-514 with Shin Poong Pharmaceutical Co., Ltd., a company organized under the laws of the Republic of Korea, pursuant to which we granted to Shin Poong an exclusive license, including the right to sublicense, to research, develop, make, have made, use, offer for sale, sell and import licensed products, in each case solely for the treatment of cancer by intravenous administration of formulations of docetaxel as emulsified products and solely in South Korea. Under the terms of the license agreement, we received an upfront licensing fee of \$0.3 million in April 2009 (which we recognized as licensing revenue in the three-month period ended March 31, 2009 because we met the criteria under our revenue recognition policy in that period), a regulatory milestone payment of either \$0.2 million or \$0.4 million (depending on whether Shin Poong is required by the Korea Food and Drug Administration to conduct a bioequivalence or clinical study in human subjects prior to receipt of regulatory approval) upon receipt of regulatory approval for marketing a licensed product in South Korea, one-time commercial milestone payments tied to annual net sales of licensed products in an aggregate amount of up to \$1.5 million and royalty payments on net sales of licensed products. Shin Poong is responsible for all development and commercial activities related to ANX-514 in South Korea. If Shin Poong is required by the Korea Food and Drug Administration to conduct a bioequivalence or clinical trial in human subjects prior to receipt of regulatory approval and we elect not to supply product to conduct such trial, which supply obligation is subject to limitations, we will pay Shin Poong \$0.1 million.

On June 12, 2009, we completed an approximately \$2.0 million registered direct equity financing, involving the issuance and sale of shares of our 0% Series A Convertible Preferred Stock, convertible into 18,036,199 shares of our common stock, and warrants to purchase up to 8,116,290 shares of our common stock. We received approximately \$1.7 million in net proceeds from the offering, after deducting the placement agent's fees and our estimated offering expenses. We may receive up to approximately \$1.2 million of additional proceeds from the exercise of the warrants issued in that offering; however, those warrants are not exercisable until December 13, 2009 and their exercise is subject to certain ownership limitations. In connection with the offering, we also issued warrants to purchase up to 910,810 shares of our common stock at an exercise price of \$0.15 per share to our placement agent in consideration for its services.

On July 6, 2009, we completed an approximately \$1.4 million registered direct equity financing involving the issuance of shares of our 5% Series B Convertible Preferred Stock, convertible into 9,504,189 shares of our common stock. We received approximately \$1.2 million in net proceeds from the offering, after deducting the placement agent fees and our estimated offering expenses. The convertible preferred shares were to accrue a 5% dividend until July 6, 2014, unless converted prior to such date. Upon any conversion of these preferred shares we were obligated to pay the holder an amount equal to the total dividend that would have otherwise accrued on the shares through July 6, 2014, less any dividend payment previously made with respect to such converted shares. Twenty-five percent, or \$340,250, of the gross proceeds of the financing were placed in an escrow account for payment of the dividend and conversion amounts payable on the 5% Series B Convertible Preferred Stock. All of the shares of the 5% Series B Convertible Preferred Stock have been converted and, pursuant to the terms of the 5% Series B Convertible Preferred Stock, we paid an aggregate of \$340,250 from the escrow account to the holder of the converted preferred shares in connection with such conversions.

All of the shares of our 0% Series A Convertible Preferred Stock and 5% Series B Convertible Preferred Stock issued in the June and July 2009 financings have been converted and, as a result, an additional 27,540,388 shares of our common stock have been issued since March 31, 2009.

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Following the completion of the June 2009 financing, we re-started the final manufacturing activities related to submitting an NDA for ANX-530 to seek approval of the FDA to market ANX-530 in the U.S. In addition, we intend to continue to evaluate the data from our recently-completed bioequivalence study of ANX-514 and we plan to seek a meeting with the FDA to discuss the results. However, even following the offering described in this prospectus, we may need to raise substantial additional capital to fund our operations, including activities relating to the commercialization of ANX-530 in the U.S., if an NDA for ANX-530 is submitted and ANX-530 is approved by the FDA, and activities relating to the development and regulatory review process and, ultimately, commercialization of ANX-514.

There can be no assurances that we will be able to obtain additional financing on a timely basis, or at all. If we are unable to raise sufficient additional capital on a timely basis to continue our fundamental business operations, we may seek protection under the provisions of the U.S. Bankruptcy Code or liquidate our assets and wind-up our operations. If we pursue an orderly liquidation of our assets, based on our current working capital and the estimated costs associated with seeking approval for and implementing a liquidation plan, we expect the remaining cash available for distribution to our stockholders, if any, to be insignificant.

**Reverse Stock Split**

Our board of directors has called a special meeting of our stockholders to be held on August 25, 2009. We have recommended to our stockholders that, at this special meeting, they approve authorizing our board of directors to effect a reverse stock split of our outstanding common stock at a ratio in the discretion of the board of directors that is not less than 2:1 nor greater than 50:1.

**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 accounting principles generally accepted in the United States of America, or U.S. 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.

**Revenue Recognition.** We recognize revenue in accordance with the SEC's Staff Accounting Bulletin Topic 13, Revenue Recognition, or Topic 13, and Emerging Issues Task Force Issue, or EITF, No. 00-21, Revenue Arrangements with Multiple Deliverables, or 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) collectability 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 the license term commences and the revenue recognition criteria under Topic 13 and EITF 00-21 are met. 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



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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, bioequivalence and clinical trials, research-related manufacturing services, contract services and other outside expenses. R&D expenses are charged to operations as the underlying work is performed. 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 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 bioequivalence and clinical trials are often made under contracts with multiple contract research organizations that conduct and manage these 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 milestones. Expenses related to bioequivalence and 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 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 bioequivalence or 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 bioequivalence and 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 bioequivalence and 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 SFAS No. 141, Business Combinations, through December 31, 2008, we accounted for the costs associated with any purchased in-process research and development, or IPR&D, to the 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 generating future economic benefits. We determine the future economic benefits from the purchased IPR&D to be uncertain until such technology is incorporated into products approved for marketing by the FDA or when other significant risk factors are abated.

We adopted SFAS No. 141(R)-1, Business Combinations, effective for fiscal years beginning on or after December 15, 2008. The adoption of SFAS 141(R) did not have a material effect on our consolidated results of operations and financial condition.

**Share-based Compensation Expenses.** Effective January 1, 2006, we accounted for share-based compensation awards granted to employees, including members of our board of directors, in accordance with the revised SFAS No. 123, Share-Based Payment, or SFAS 123R, including the provisions of Staff Accounting Bulletins No. 107 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. As of March 31, 2009, we had no awards with market or performance conditions other than the restricted stock units that we granted in January 2009, which would have vested, if at all, immediately prior to a strategic transaction (as defined in the documentation evidencing the grant of the units), but which were terminated in July 2009. As share-based compensation expense is based on

awards ultimately expected to vest, it has been reduced for estimated forfeitures. SFAS 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 stock-based compensation under the recognition and measurement principles of SFAS 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, or 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 share price as well as assumptions regarding a number of complex and subjective variables. These variables include,

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but are not limited to, our expected share 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*, or 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 share price and other measurement assumptions as of the earlier 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.

**Income Taxes.** In June 2006, FASB issued Financial Interpretation No., or FIN, 48, *Accounting for Uncertainty in Income Taxes—an Interpretation of FASB Statement 109*, which 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. The provisions of FIN 48 were effective for us as of January 1, 2007, with the cumulative effect of the change in accounting principle recorded as an adjustment to opening retained earnings in the year of adoption. We adopted FIN 48 on January 1, 2007, which did not have a material impact on our consolidated results of operations or financial position.

**Costs Associated with Exit or Disposal Activities.** As part of our efforts to reduce operating costs, we completed the following three work force reductions since the end of the third quarter of 2008, each of which was accounted for in accordance with SFAS No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*:

In October 2008, we completed a work force reduction of nine employees. As a result, we recorded severance-related charges of \$403,000, of which approximately \$384,000 was recorded in R&D and the remainder in selling, general and administrative, or SG&A. In connection with the October 2008 reduction in workforce, severance-related charges of \$244,000 were recorded in the fourth quarter of 2008, \$120,000 were recorded in the first quarter of 2009, and the remainder was recorded in the second quarter of 2009.

In January 2009, we completed a work force reduction of six employees. As a result, we recorded severance-related charges of \$174,000, of which \$86,000 was recorded in R&D and the remainder in SG&A. In connection with the January 2009 reduction in workforce, severance-related charges of \$144,000 were recorded in the first quarter of 2009 and the remainder was recorded in the second quarter of 2009.

In April 2009, we completed a work force reduction of nine employees. As a result, we recorded severance-related charges of \$160,000, of which \$101,000 was recorded in R&D and the remainder in SG&A. In connection with the April 2009 reduction in workforce, severance-related charges of \$114,000 were recorded in the first quarter of 2009 and the remainder was recorded in the second quarter of 2009.

The foregoing 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, or 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, or IND, 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, or FDCA. Development of new formulations of pharmaceutical products under Section

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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 of our 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 the underlying product candidate, our ongoing assessment of its market potential and our available resources.

Future expenditures on R&D programs are subject to many uncertainties, including whether our product candidates will be further developed with a partner or independently. At this time, due to such uncertainties and the risks inherent in drug development and the associated regulatory process, 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 revenues will be generated from the commercialization and sale of any of our product candidates. The duration and costs of our R&D programs, in particular those associated with bioequivalence trials and research-related manufacturing, can vary significantly among programs as a result of a variety of factors, including:

the number and location of sites included in trials and the rate of site approval for the trial;

the rates of patient recruitment and enrollment;

the ratio of randomized to evaluable patients;

the availability and cost of reference product in the jurisdiction of each site;

the time and cost of process development activities related to our product candidates;

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 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.

While many of our R&D expenses are transacted in U.S. dollars, certain significant expenses are required to be paid in foreign currencies and expose us to transaction gains and losses that could result from changes in foreign currency exchange rates. In particular, our current contract manufacturer for both ANX-530 and ANX-514 is located outside the U.S. and generally we pay for its services, including the final manufacturing activities related to submitting an NDA for ANX-530, in Euros. As a result, our exposure to currency risk likely will increase as we move our products towards commercialization and increase the services we request from our current contract manufacturer. We include realized gains and losses from foreign currency transactions in operations as incurred.

We operate our business and evaluate our company on the basis of a single reportable segment, which, fundamentally, is the business of in-licensing, developing and commercializing proprietary product candidates for the treatment of cancer. We recognized revenues of \$0.5 million in each of 2008 and 2007, which revenues were derived solely from license fees under a license agreement with Theragenex, LLC, which we terminated in August 2007.

**Operating Expenses  
Years Ended  
December 31,**

|                                     | <b>2008</b> | <b>2007</b> |
|-------------------------------------|-------------|-------------|
| Research and development            | 64%         | 64%         |
| Selling, general and administrative | 35%         | 35%         |
| Depreciation and amortization       | 1%          | 1%          |
| Total operating expenses            | 100%        | 100%        |

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**Table of Contents****Comparison of Three Months Ended March 31, 2009 and 2008**

**Revenue.** Revenue recognized for the three months ended March 31, 2009 represents a \$0.3 million nonrefundable license fee under our license agreement with Shin Poong Pharmaceutical Co., Ltd. Consistent with our revenue recognition policy, we recognized the license fee as revenue in the three-month period ended March 31, 2009 because, in that period, persuasive evidence of an arrangement existed, services had been rendered, the amount of the payment was fixed and determinable and collectability was reasonably assured. No revenue was recognized for the three months ended March 31, 2008.

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, the timing of which, if it occurs at all, we cannot currently predict.

**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 the three months ended March 31, 2009 compared to the same period in 2008, and for the period from January 1, 2005 through March 31, 2009:

|   | Three months ended March 31, |              |                | %        | January 1,<br>2005<br>through<br>March 31,<br>2009 |
|---|------------------------------|--------------|----------------|----------|--|
|   | 2009                         | 2008         | \$ Variance    | Variance |  |
| External clinical study fees and expenses         | \$ 578,992                   | \$ 1,021,920 | \$ (442,928)   | (43%)    | \$ 23,778,472                                      |
| External non-clinical study fees and expenses (1) | 470,248                      | 1,418,985    | (948,737)      | (67%)    | 19,415,722   |
| Personnel costs                                   | 623,436                      | 1,073,706    | (450,270)      | (42%)    | 10,134,624   |
| Share-based compensation expense                  | (25,376)                     | 305,696      | (331,072)      | (108%)   | 2,858,784  |
| Total   | \$ 1,647,300                 | \$ 3,820,307 | \$ (2,173,007) | (57%)    | \$ 56,187,602                                      |

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

R&D expenses decreased by \$2.2 million, or 57%, to \$1.6 million for the three months ended March 31, 2009, compared to \$3.8 million for the comparable period in 2008. The decrease in R&D expenses was primarily due to a \$0.6 million decrease in external clinical trial expenses related to CoFactor, a \$1.0 million decrease in non-clinical expenses related to ANX-514 and ANX-530, a \$0.5 million decrease in personnel costs related to the reductions in

staff and a \$0.3 million decrease in share-based compensation expense, offset by a \$0.2 million increase in clinical trial expenses related to ANX-514. We expect that our recent reductions in full-time employees will result in R&D cost savings. However, we also expect such cost-savings will be offset in part or entirely by costs related to our recently re-started activities related to ANX-530 and ANX-514.

***Selling, General and Administrative Expenses.*** SG&A expenses decreased by \$0.6 million, or 25%, to \$1.8 million for the three months ended March 31, 2009, compared to \$2.4 million for the comparable period in 2008. The decrease was primarily due to a \$0.3 million decrease in personnel costs related to reductions in staff, a \$0.2 million decrease in legal and professional services and a \$0.1 million decrease in business insurance. We expect SG&A expenses to continue to decline given our recent reductions in full-time employees. However, we also expect such cost-savings will be offset in part or entirely by costs related to capital-raising activities, which costs will be expensed unless and until the closing of the applicable capital-raising transaction.

***Interest Income and Other Income.*** Interest income and other income decreased by \$0.3 million, or 99%, to \$1,776 for the three months ended March 31, 2009, compared to \$0.3 million for the comparable period in 2008. The decrease was primarily attributable to lower interest income based on lower cash balances. We expect that interest income will continue to decline as forecasted interest rates decline along with lower cash balances.

***Net Loss.*** Net loss was \$3.2 million, or \$0.03 per share, for the three months ended March 31, 2009, compared to a net loss of



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\$5.9 million, or \$0.07 per share, for the comparable period in 2008. Included in the net loss for the three months ended March 31, 2009 were charges associated with our October 2008 and January and March 2009 reductions in force.

**Comparison of Years Ended December 31, 2008 and 2007**

**Revenue.** We recognized revenue of \$0.5 million for each of the years ended December 31, 2008 and 2007. Revenue in 2007 represents nonrefundable licensing fees paid under our license agreement with Theragenex LLC, which we terminated in August 2007 as a result of Theragenex's breach of the agreement. Revenue in 2008 represents a portion of a settlement payment from Theragenex. In May 2008, we settled our dispute with Theragenex arising out of its breach of the license agreement and, in accordance with such settlement, Theragenex paid us \$0.6 million. We recognized \$0.5 million as revenue in 2008, which represents a portion of the \$0.6 million settlement payment, because under the license agreement Theragenex was required to pay a total nonrefundable, up front licensing fee of \$1.0 million (\$0.5 million of which we received in January 2007 and \$0.5 million of which was due in June 2007) and because we met the criteria for revenue recognition. The remainder of the settlement payment, \$0.1 million, was recorded as other income.

**R&D Expenses.** The following table summarizes our consolidated R&D expenses by type for the year ended December 31, 2008, compared to the same period in 2007, and for the period from January 1, 2005 through December 31, 2008:

|   | Year ended December 31, |               |                | %        | January 1,<br>2005<br>through<br>December 31,<br>2008 |
|---|-------------------------|---------------|----------------|----------|---|
|   | 2008                    | 2007          | \$ Variance    | Variance |   |
| External clinical study fees and expenses         | \$ 3,373,865            | \$ 7,535,923  | \$ (4,162,058) | (55)%    | \$ 23,199,479   |
| External non-clinical study fees and expenses (1) | 10,585,695              | 4,346,397     | 6,239,298      | 144%     | 18,945,474  |
| Personnel costs                                   | 3,237,158               | 2,997,852     | 239,306        | 8%       | 9,511,188   |
| Share-based compensation expense                  | 725,465                 | 1,054,237     | (328,772)      | (31)%    | 2,884,161   |
| Total   | \$ 17,922,183           | \$ 15,934,409 | \$ 1,987,774   | 12%      | \$ 54,540,302   |

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

R&D expenses increased by \$2.0 million, or 12%, to \$17.9 million for the year ended December 31, 2008, compared to \$15.9 million in 2007. The increase in R&D expenses was primarily due to a \$6.2 million increase in expenses related to external research-related manufacturing and regulatory and quality assurance activities related to ANX-530 and ANX-514, a \$1.3 million increase in external clinical trial expenses related to ANX-514 and a

\$0.2 million increase in personnel costs, offset by a \$5.4 million decrease in external clinical trial expenses related to CoFactor and ANX-530 and a \$0.3 million decrease in non-cash, share-based compensation expense.

**Selling, General and Administrative Expenses.** SG&A expenses increased by \$1.0 million, or 12%, to \$9.7 million for 2008, compared to \$8.7 million in 2007. The increase was substantially due to a \$0.7 million increase for severance expenses, a \$0.4 million increase for consulting expenses related to market research, a \$0.3 million increase in personnel expenses and a \$0.1 million increase in professional services, offset by a decrease of \$0.5 million in non-cash, share-based compensation expense.

**Interest Income and Other Income.** Interest income and other income for 2008 decreased by \$1.5 million, or 69%, to \$0.7 million in 2008, compared to \$2.2 million in 2007. The decrease was primarily attributable to lower interest income based on lower invested balances. The decrease was partially offset by \$0.1 million received as part of the TheraGenex settlement, which was recorded as other income.

**Net Loss.** Net loss was \$26.6 million or \$0.30 per share in 2008, compared to a net loss of \$22.1 million or \$0.25 per share in 2007.

### **Liquidity and Capital Resources**

We have a history of recurring losses from operations and we have funded our operations primarily through sales of our equity securities. We had a net loss of \$3.2 million in the first quarter of 2009, which included charges associated with our October 2008 and January and March 2009 reductions in force, and cash and cash equivalents of approximately \$5.3 million and working capital of \$2.8

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million at March 31, 2009.

On June 12, 2009, we completed an approximately \$2.0 million registered direct equity financing involving the issuance of shares of our 0% Series A Convertible Preferred Stock, convertible into 18,036,199 shares of our common stock, and warrants to purchase up to 8,116,290 shares of our common stock. We received approximately \$1.7 million in net proceeds from the offering, after deducting the placement agent's fees and our estimated offering expenses. All of the shares of the 0% Series A Convertible Preferred Stock subsequently have been converted. We may receive up to approximately \$1.2 million of additional proceeds from the exercise of the warrants issued in that offering; however, those warrants are not exercisable until December 13, 2009 and their exercise is subject to certain ownership limitations. In connection with the offering, we also issued warrants to purchase up to 910,810 shares of our common stock at an exercise price of \$0.15 per share to the placement agent in the offering as additional consideration for its services. The placement agent's warrant is not exercisable until December 13, 2009.

On July 6, 2009, we completed an approximately \$1.4 million registered direct equity financing involving the issuance of shares of our 5% Series B Convertible Preferred Stock, convertible into 9,504,189 shares of our common stock. We received approximately \$1.2 million in net proceeds from the offering, after deducting the placement agent's fees and our estimated offering expenses. The convertible preferred shares were to accrue a 5% dividend until July 6, 2014, unless converted prior to such date. Upon any conversion of these preferred shares we were obligated to pay the holder an amount equal to the total dividend that would have otherwise accrued on the shares through July 6, 2014, less any dividend payment previously made with respect to such converted shares. Twenty-five percent, or \$340,250, of the gross proceeds of the financing were placed in an escrow account for payment of the dividend and conversion amounts payable on the 5% Series B Convertible Preferred Stock. All of the shares of the 5% Series B Convertible Preferred Stock subsequently have been converted and, pursuant to the terms of the 5% Series B Convertible Preferred Stock, we paid an aggregate of \$340,250 from the escrow account to the holder of the converted preferred shares in connection with such conversions. In connection with the offering, we also issued warrants to purchase up to 475,209 shares of our common stock at an exercise price of \$0.179 per share to the placement agent in the offering as additional consideration for its services. The placement agent's warrant is not exercisable until January 7, 2010.

We have an on-going need to raise additional capital to support our operations, which we have historically done primarily through the issuance of our equity securities. In the current financial and economic environment it is uncertain that we can obtain funding through our traditional sources of capital. These factors raise substantial doubt about our ability to continue as a going concern. We expect to incur substantial costs in connection with activities relating to submitting an NDA for ANX-530, advancing ANX-530 toward commercialization in the U.S. and continuing development and regulatory related activities for ANX-514. We may also incur substantial costs in connection with evaluating, negotiating and consummating future capital-raising and/or strategic or partnering transactions or liquidating our assets and winding-up our operations. We cannot currently predict the extent of these costs. Even if we incur costs in pursuing, evaluating and negotiating particular capital-raising and/or strategic or partnering transactions, our efforts may not prove successful. Excluding the potentially significant costs associated with evaluating, negotiating and consummating capital-raising and/or strategic or partnering transactions or seeking protection under the provisions of the U.S. Bankruptcy Code or liquidating our assets and winding-up our operations, we anticipate that our cash and cash equivalents as of March 31, 2009, together with the net proceeds from the equity financings we completed on June 12, 2009 and July 6, 2009, will be sufficient to permit us to conduct our business through at least September 30, 2009. We will need to raise substantial additional capital to continue our business after this period.

**Three months ended March 31, 2009 and 2008**

**Operating Activities.** Net cash used in operating activities was \$4.5 million for the three months ended March 31, 2009, compared to \$4.8 million for the comparable period in 2008. The decrease in cash used in operating activities was primarily due to reductions in development activities and fundamental business operations, as well as a \$0.3 million increase in licensing revenue. Included in cash used in operating activities for the three months ended March 31, 2009 were charges associated with our October 2008 and January and March 2009 reductions in force. Accordingly, the decreased expenses we otherwise would have realized in the first quarter of 2009 were offset by charges associated with our October 2008 and January and March 2009 reductions in force.

**Investing Activities.** Net cash provided by investing activities was \$0 for the three months ended March 31, 2009, compared to cash used in investing activities of \$10.3 million for the comparable period in 2008.

**Financing Activities.** There were no financing activities in the three months ended March 31, 2009 and 2008.

**Accrued Compensation and Payroll Taxes.** Accrued compensation and payroll taxes were \$0.8 million at March 31, 2009, compared to \$0.9 million at December 31, 2008, a decrease of \$0.1 million, or 15%. The decrease was primarily due to the paying-down of severance-related expenses associated with our October 2008 reduction in staff, offset by severance-related expenses associated with our January and March 2009 reductions in staff.

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Explanations of cash flow from operating, investing and financing activities are provided below.

|   | <b>December 31,<br/>2008</b>                | <b>Decrease<br/>During 2008</b>       | <b>December 31,<br/>2007</b>                |
|---|---|---------------------------------------|---|
| Cash and cash equivalents and investments in securities | \$9,849,904                                 | \$(23,613,252)                        | \$33,463,156                                |
| Net working capital                                     | \$5,735,519                                 | \$(24,922,542)                        | \$30,658,061                                |
|   | <b>Year Ended<br/>December 31,<br/>2008</b> | <b>Change<br/>Between<br/>Periods</b> | <b>Year Ended<br/>December 31,<br/>2007</b> |
| Cash used in operating activities                       | \$ (23,787,604)                             | \$ (4,144,414)                        | \$ (19,643,190)                             |
| Cash provided by investing activities                   | 18,856,769                                  | 10,848,497                            | 8,008,272                                   |
| Cash provided by financing activities                   |   | (441,616)                             | 441,616                                     |
| Net (decrease) increase in cash and cash equivalents    | \$ (4,930,835)                              | \$ 6,262,467                          | \$ (11,193,302)                             |

**Operating activities.** Net cash used in operating activities was \$23.8 million in 2008, compared to \$19.6 million in 2007. The increase in cash used in operating activities in 2008 was mainly due to the increase in our R&D and SG&A expenses.

**Investing activities.** Net cash provided by investing activities was \$18.9 million in 2008, compared to cash used in investing activities of \$8.0 million in 2007. Cash provided by investing activities in 2008 and 2007 was mainly net proceeds from sales of short-term investments.

**Financing activities.** There was no cash provided by financing activities in 2008. In 2007, net cash provided by financing activities was \$0.4 million, consisting of proceeds from option exercises.

**Management Outlook**

We have an on-going need to raise additional capital to support our operations. Despite the equity financings we completed on June 12, 2009 and July 6, 2009, we believe our ability to raise capital has been materially and adversely affected by the current financial and economic environment. In addition, 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 NYSE Amex (formerly, the American Stock Exchange).

Although the funds raised in our June and July 2009 equity financings have enabled us to re-start activities necessary to submit an NDA seeking FDA approval to market ANX-530 in the U.S. and engage consultants to assist us in analyzing the results of our recently completed bioequivalence study of ANX-514, we will require substantial additional capital to continue to seek FDA approval of and ultimately commercialize ANX-530 and ANX-514. Currently, in addition to pursuing activities necessary to submit an ANX-530 NDA and continuing to evaluate the data from the ANX-514 bioequivalence study, we are focused primarily on raising additional capital as soon as possible to continue to advance ANX-530 and ANX-514 toward commercialization in the U.S. We also intend to continue to evaluate any strategic or partnering options, including the sale or exclusive license of one or more of our product candidate programs, a strategic business merger, co-marketing partnerships and other similar transactions. However, there can be no assurances that we will continue to pursue capital-raising transactions or strategic or partnering alternatives or, if we do, that we will be successful in consummating a transaction on a timely basis, or at all. We likely will not be able to continue as a going concern unless we raise adequate additional capital. Given our recent restructuring and cost-cutting measures, our ability to further curtail expenses to provide additional time to obtain financing or to consummate a strategic or partnering transaction is limited.

We are unable to predict when, if ever, we will be able to raise additional capital or the form, structure or terms of any potential strategic or partnering transaction, including whether we will continue as a going concern, or whether we

will seek protection under the provisions of the U.S. Bankruptcy Code or liquidate our assets and entirely wind-up our operations. As a result, the duration that our existing cash and cash equivalents will sustain our current operations is uncertain. However, excluding the potentially significant costs associated with evaluating, negotiating and consummating capital-raising and/or strategic or partnering transactions or seeking protection under the provisions of the U.S. Bankruptcy Code or liquidating our assets and winding-up our operations, we anticipate that our cash and cash equivalents as of March 31, 2009, together with the net proceeds from the equity financings we completed on

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June 12, 2009 and July 6, 2009, will be sufficient to permit us to conduct our business through at least September 30, 2009. We will need to raise substantial additional capital to continue our business after this period.

**Recent Accounting Pronouncements**

See Note 8, Recent Accounting Pronouncements, of the Notes to the Condensed Consolidated Financial Statements (unaudited) in this prospectus for a discussion of recent accounting announcements and their effect, if any, on us.

**Off-Balance Sheet Arrangements**

We had no off-balance sheet arrangements as of December 31, 2008 or 2007 or as of March 31, 2009 or 2008, as defined in Item 303(a)(4) of Regulation S-K promulgated by the SEC. Accordingly, no such arrangements are likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

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**BUSINESS**

**Overview**

We are a development-stage biopharmaceutical company whose fundamental business is focused on in-licensing, developing and commercializing proprietary product candidates for the treatment of cancer. We seek to improve the performance and commercial potential of existing treatments by addressing limitations associated principally with their safety and use. We have not yet marketed or sold any products or generated any significant revenue.

Our lead product candidates, ANX-530 and ANX-514, are novel emulsion formulations of currently marketed chemotherapy drugs. We believe ANX-530 (vinorelbine emulsion) and ANX-514 (docetaxel emulsion) may improve the safety of and have greater commercial potential than the currently marketed reference products, Navelbine and Taxotere, respectively, by:

Reducing the incidence and severity of adverse effects; and

Increasing their pharmacoeconomics and convenience to healthcare practitioners and patients.

We have recently re-started certain of our fundamental business operations, which we had previously suspended to conserve working capital. Specifically, following completion of our equity financing in June 2009, we have been conducting activities necessary to submit an NDA seeking FDA approval to market ANX-530 in the U.S. and evaluating the data from our recently completed bioequivalence study of ANX-514. In addition, we have remained focused on raising additional capital as soon as possible to continue to advance ANX-530 and ANX-514 toward commercialization in the U.S. We also plan to continue to evaluate any strategic or partnering options, including the sale or exclusive license of one or more of our product candidate programs, a strategic business merger, co-marketing partnerships and other similar transactions.

Beginning in October 2008 and through June 2009, we implemented numerous restructuring, cost-cutting and re-prioritization initiatives to reduce operating costs and focus on those of our options that we believed maximized the value of our assets. For instance, during that period, we effected three reductions in our full-time employee workforce and, currently, we have two full-time employees. We engage consultants on a project or as-needed basis and outsource substantially all of our development activities to specialized vendors and contract development organizations. In addition, in October 2008, we discontinued our ANX-510, or CoFactor, program, in December 2008, we began exploring a range of strategic options, including the sale or disposition of one or more of our product candidate programs, a strategic business merger and other similar transactions, and, in March 2009, we suspended substantially all of our development activities and fundamental business operations to provide additional time to consummate a strategic transaction or otherwise obtain financing.

Throughout 2008 and the first half of 2009, we experienced substantial turn-over in our executive and management ranks. In January and April 2008, our employment relationship with our former president and chief medical officer and former chief financial officer and senior vice president, respectively, ended. In April 2008, Mark N.K. Bagnall, the former chair of the audit committee of our board of directors, who was also a member of the compensation and nominating and governance committees of our board of directors, joined our management team as executive vice president and chief financial officer and, in December 2008, Mr. Bagnall stepped down as executive vice president and chief financial officer and resumed his role as solely a member of our board of directors but also serves as a consultant to us. In October 2008, as part of a reduction in our workforce, we ended our employment relationship with our former chief scientific officer and senior vice president, our former vice president of medical affairs and our former vice president of research and development and promoted our former vice president of commercialization to senior vice president of operations. At the same time, our former chief executive officer and president resigned his management positions, though remained on our board of directors until December 2008, at which time he resigned his position on our board of directors. In January 2009, as part of an additional reduction in our work force, we ended our employment relationship with our vice president of manufacturing. In May 2009, our senior vice president of operations, resigned and, in July 2009, our vice president of regulatory affairs and quality assurance resigned. Beginning in October 2008, our company was led by a committee of executive officers. In February 2009, our board of directors appointed Brian M. Culley, our chief business officer and senior vice president, to additionally serve as our principal executive officer and, in July 2009, appointed Patrick L. Keran, our general counsel, secretary and vice



president, legal, to additionally serve as our principal financial officer and principal accounting officer. However, as of the date of this prospectus, we have not hired or appointed a chief executive officer or chief financial officer. In addition, as of the date of this prospectus, we have only two employees, both full-time, Mr. Culley and Mr. Keran. It is unclear whether or to what extent the departure of our former executives and management personnel, our reduced workforce or our reliance on consultants, vendors and contract organizations for assistance with our research and development and our selling, general and administrative activities or our leadership by officers who do not have substantial previous experience in executive leadership roles will negatively impact our ability to execute our business plan or to

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maintain effective disclosure controls and procedures or internal control over financial reporting.

On June 12, 2009, we completed an approximately \$2.0 million registered direct equity financing involving the issuance of shares of our 0% Series A Convertible Preferred Stock, convertible into 18,036,199 shares of our common stock, and warrants to purchase up to 8,116,290 shares of our common stock. We received approximately \$1.7 million in net proceeds from the offering, after deducting the placement agent's fees and our estimated offering expenses. All of the shares of the 0% Series A Convertible Preferred Stock subsequently have been converted.

Following the June 2009 financing, we re-started the final manufacturing activities related to submitting an NDA for ANX-530 to seek approval of the FDA to market ANX-530 in the U.S. and engaged consultants with expertise in taxane pharmacokinetics to assist us in analyzing the results of our bioequivalence study of ANX-514.

On July 6, 2009, we completed an approximately \$1.4 million registered direct equity financing involving the issuance of shares of our 5% Series B Convertible Preferred Stock, convertible into 9,504,189 shares of our common stock. We received approximately \$1.2 million in net proceeds from the offering, after deducting the placement agent's fees and our estimated offering expenses. The convertible preferred shares were to accrue a 5% dividend until July 6, 2014, unless converted prior to such date. Upon any conversion of these preferred shares we were obligated to pay the holder an amount equal to the total dividend that would have otherwise accrued on the shares through July 6, 2014, less any dividend payment previously made with respect to such converted shares. Twenty-five percent, or \$340,250, of the gross proceeds of the financing were placed in an escrow account for payment of the dividend and conversion amounts payable on the 5% Series B Convertible Preferred Stock. All of the shares of the 5% Series B Convertible Preferred Stock subsequently have been converted and, pursuant to the terms of the 5% Series B Convertible Preferred Stock, we paid an aggregate of \$340,250 from the escrow account to the holder of the converted preferred shares in connection with such conversions.

We expect that, even if we complete the offering described in this prospectus, we may need to raise substantial additional capital to fund our operations, including activities relating to the commercialization of ANX-530, if an NDA for ANX-530 is submitted and if ANX-530 is approved by the FDA, and activities relating to the development and regulatory review process and, ultimately, commercialization of ANX-514. If we are unable to raise sufficient additional capital through this offering or through future transactions following this offering, we may seek protection under the provisions of the U.S. Bankruptcy Code or liquidate our assets and wind-up our operations. We are unable to predict when, if ever, we will be able to raise additional capital to support our operations or the form, structure or terms of any future equity or debt financing or strategic or partnering transaction.

Our business was incorporated in Delaware in December 1995. In October 2000, we merged our wholly-owned subsidiary, Biokeys Acquisition Corp., with and into Biokeys, Inc. and changed our name to Biokeys Pharmaceuticals, Inc. In May 2003, we merged Biokeys, Inc., our wholly-owned subsidiary, with and into us and changed our name to ADVENTRX Pharmaceuticals, Inc. In July 2004, we formed a wholly-owned subsidiary, ADVENTRX (Europe) Ltd., in the United Kingdom primarily to facilitate conducting clinical trials in the European Union and to obtain favorable pricing for discussions with the European Medicines Agency. In April 2006, we acquired SD Pharmaceuticals, Inc. as a wholly-owned subsidiary. Our executive offices are located at 6725 Mesa Ridge Road, Suite 100, San Diego, California 92121, and our telephone number is (858) 552-0866. Our corporate website is located at [www.adventrx.com](http://www.adventrx.com).

**Oncology Focus**

Our lead product candidates are designed to improve treatments for cancer patients. Each year, almost 11 million people worldwide are diagnosed with and nearly 7 million people die from cancer. According to the American Cancer Society, cancer is the second most common cause of death in the U.S., accounting for 1 of every 4 deaths. It is estimated that over 1.4 million new cancer cases were diagnosed and over 550,000 people died from cancer in the U.S. in 2007.

Treatment choices for cancer patients depend on the type, stage and progression of the cancer, along with the number and types of prior therapies, if any. Treatment options include surgery, radiation, chemotherapy, hormone therapy and immunotherapy, both alone and in combination with each other. Treatment of cancer with chemicals is referred to as chemotherapy. Adjuvant therapy refers to additional treatment, typically chemotherapy or radiation, following removal of detectable cancerous growths, typically by surgery. In 2006, chemotherapies generated over

\$40 billion in revenues.

**Our Lead Product Candidates (ANX-530 and ANX-514)**

*Opportunities for New Formulations*

Reformulating existing pharmaceutical products is an increasingly common product lifecycle-management technique. Between 2002 and 2005, nearly 40% of the products launched by the top 50 pharmaceutical manufacturers were reformulations. Finding new

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markets for and ways to modify and improve existing products is often an essential element of pharmaceutical companies' efforts to maintain or grow revenues in the face of patent expirations and competitive pressures.

Navelbine and Taxotere are intravenously-injected chemotherapy drugs commonly used to treat solid tumors. We believe the current formulations of these drugs have limitations that present opportunities for improvement. We are developing novel ways to formulate the active ingredient underlying each of these drugs that we believe may improve their safety profiles without adversely affecting efficacy. In addition, we believe our formulations may provide benefits to patients and practitioners that do not manifest themselves in traditional measures of safety or efficacy.

*Regulatory Strategy*

The regulatory strategy for our lead product candidates is to demonstrate the bioequivalence of each of ANX-530 and ANX-514 to the currently marketed reference product. The bioequivalence of two drugs can be demonstrated in a single trial of as few as 28 patients, typically in an open-label, single-dose, cross-over comparison of the drugs. For each of ANX-530 and ANX-514, the FDA has indicated that data from a single study of approximately 28 patients that demonstrates the bioequivalence of our product candidates to the reference product may be sufficient to support an NDA. Accordingly, we view these bioequivalence trials as registrational studies in that they have the potential to support a marketing application. If approved, the drug prescribing information, or label, for our products may reflect data generated during the bioequivalence trials, including comparative adverse event information.

The relatively low number of required patients and the single-dose treatment cycles associated with these bioequivalence trials can decrease study timelines and costs relative to typical pivotal studies. Accordingly, with relatively modest financial investment, we are able to assess the pharmacokinetic equivalence of each of our product candidates to the reference product in as little as 12 to 18 months from initiation of the trial, which information should provide the data necessary to support an NDA. By securing in advance clarity from the FDA regarding our planned regulatory pathway, as we have done for ANX-530 and ANX-514, we mitigate aspects of the regulatory risk associated with drug development. Furthermore, after we obtain marketing approval, we can conduct clinical studies while marketing our products to expand product labels in ways that might increase their commercial value.

Furthermore, if any clinical studies we conduct, in addition to our bioequivalence studies, are essential to the FDA's approval of an application to use our products or product candidates to treat a new indication, or to support a label change in product use, the product may be eligible for three years of marketing exclusivity for that indication or use. Marketing exclusivity means that the FDA will not approve an abbreviated NDA, or ANDA (an ANDA is for a generic drug product) or Section 505(b)(2) NDA during the exclusivity period based on the conditions of approval of our product.

*Commercialization Strategy***HCPCS Product Codes and Reimbursement**

In the U.S. and elsewhere, healthcare providers, including hospitals, nursing homes and physician offices, typically purchase and administer to patients the drugs that patients are restricted from self-administering and then seek reimbursement, primarily from third party payors such as Medicare, Medicaid and private insurance companies. As a result, sales of physician-administered prescription pharmaceuticals are dependent in large part on the availability and rate of reimbursement to healthcare providers from third party payors.

The Healthcare Common Procedure Coding System, or HCPCS, was established to identify and provide unique codes for healthcare goods and procedures, including codes for injectable oncology drugs such as ANX-530 and ANX-514, should they be approved. Ultimately, the Centers for Medicare and Medicaid Services, or CMS, is responsible for reviewing and approving applications for new HCPCS codes for healthcare goods. Generic equivalents of drugs are assigned the same HCPCS code as the original drug. Virtually all U.S. payors, including Medicare and private insurance plans, use the Healthcare Common Procedure Coding System, including the product codes assigned by CMS.

In determining a specific reimbursement rate for a drug, CMS publishes an average sales price for the drug based on manufacturer-reported sales data for all drugs within the same HCPCS product code, including applicable discounts and rebates, as well as a reimbursement rate, expressed as a percentage of the average sales price. Because generic equivalents of drugs are assigned the same HCPCS code as the original drug, generic competition can be expected to decrease the level of reimbursement for all drugs with the same HCPCS product code (both the original

drug and its generic equivalents) until price equilibrium is reached. Most private payors use similar methods for determining reimbursement rates, sometimes based on average wholesale prices or CMS

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published average sales price.

Our commercial strategy in the U.S. for ANX-530 and ANX-514 is to seek HCPCS product codes that are distinct from those for Navelbine and Taxotere, respectively. If our products are provided unique HCPCS codes, they will be reimbursed based on their own sales prices, without including sales prices of the applicable reference product or its generic competition. We believe this will provide greater freedom to price our products at a premium to competitive products, thereby enhancing their value, and our plans include pricing ANX-530 at a premium to competitive products.

**Group Purchasing Organizations**

Group purchasing organizations, or GPOs, including provider networks, are entities that help health care providers, such as hospitals, nursing homes and physician offices, realize savings and efficiencies by aggregating purchasing volume and using that scale to negotiate discounts with manufacturers and other vendors. The U.S. healthcare industry spends more than \$200 billion annually in medical and non-medical products, with more than 70% allocated through GPOs.

We believe up to 80% of the U.S. markets for ANX-530 and ANX-514 are concentrated within eight to ten GPOs and that a small, specialized sales force may be able to effectively market and sell our products, if approved, through these organizations. As consolidation within the industry and attempts to further enhance economies of scale and marketing advantages continue, we believe these markets will concentrate further. If our products demonstrate equivalent efficacy and superior tolerability or pharmacoeconomic benefits relative to the reference product, we believe the well-established utility of the reference product should enable GPOs to enact broad and rapid shifts among their constituents from the reference product to our novel emulsion formulations.

In October 2008, we announced that, until we secured additional funding, we may delay or significantly reduce spending on activities related to product launches. Since then, we have deferred conducting most activities related to acquiring or developing sales, marketing and distribution capabilities, establishing commercial relationships with contract manufacturers and suppliers and building the associated regulatory compliance infrastructure. We will spend considerable resources, both financial and otherwise, to prepare for the commercial launch of, and to launch commercially, our product candidates, should any of them be approved and we determine to launch them independently.

**ANX-530 (vinorelbine emulsion)***Background; Limitations of Current Formulations*

ANX-530 is a novel emulsion formulation of the chemotherapy drug vinorelbine. Navelbine, a branded formulation of vinorelbine, is approved in the U.S. to treat advanced non-small cell lung cancer as a single agent or in combination with cisplatin, and approved in the European Union, or EU, to treat non-small cell lung cancer and advanced or metastatic breast cancer. Since February 2003, generic equivalents of Navelbine have been available in the U.S.

Navelbine and its generic equivalents are often associated with injection site reactions, including phlebitis, erythema and pain at the site of injection. Studies have shown these reactions occur in approximately one-third of patients, with 5% of the reactions categorized as severe.

ANX-530 is designed to reduce the incidence and severity of these injection site reactions. Our formulation emulsifies vinorelbine into a homogeneous suspension of nanoparticles that is designed protect the venous endothelium during administration into a peripheral vein, thereby reducing irritation associated with administration of the drug.

*Clinical and Regulatory Developments*

In November 2007, we announced positive results from a bioequivalence study of ANX-530. Pharmacokinetic equivalence, the primary endpoint of the study, was observed between ANX-530 and Navelbine. Based on federal regulations and FDA guidance regarding bioequivalence studies, pharmacokinetic equivalence was demonstrated by a statistical comparison of both the areas under the curve (AUC) and maximum plasma concentrations (C<sub>max</sub>).

In January 2008, we announced safety results from the study. In post hoc analyses, relative to Navelbine, ANX-530 demonstrated a statistically significant reduction in injection site reactions. Notably, the incidence of injection site reactions attributed to Navelbine was consistent with its product label. Furthermore, ANX-530 was determined to be

safe and well-tolerated with no significant differences observed in any other safety parameters.

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Throughout 2008, we conducted various activities related to our ANX-530 NDA submission. In particular, we engaged a new contract manufacturer and met with the FDA regarding our NDA submission. At this meeting, the FDA requested additional information regarding our new contract manufacturer and material manufactured by our new contract manufacturer.

In March 2009, due to an immediate need to raise additional capital to continue our business, we suspended substantially all of our development activities and fundamental business operations to conserve cash while we pursued financing alternatives, evaluated strategic options and considered whether to liquidate our assets, wind-up our operations and distribute any remaining cash to our stockholders.

Following the equity financing that we completed in June 2009, in which we raised net proceeds of approximately \$1.7 million, we re-started the final manufacturing activities related to submitting an NDA for ANX-530. An update on the ANX-530 NDA submission timeline will be provided as critical activities are completed. However, assuming the continued availability of capital to us, our goal is to submit the NDA around the end of 2009.

*Market and Opportunity*

Worldwide sales of Navelbine and generic formulations of vinorelbine in 2006 were in excess of \$200 million, with approximately 13% of these revenues generated in the U.S. Between 2004 and 2007, U.S. unit sales of Navelbine and its generic equivalents grew at a compounded annual rate of approximately 9%. If ANX-530 is granted a separate HCPCS code and is sold at a price-premium to Navelbine and its generic equivalents, the potential dollar value of this market could increase substantially.

Additionally, based in part on recent clinical studies, we believe the market for vinorelbine-based treatments, both in the U.S. and abroad, will grow in the coming years. In 2005, the New England Journal of Medicine published a study reporting a statistically significant improvement in overall survival among patients with early-stage lung cancer who received adjuvant therapy consisting of vinorelbine plus cisplatin following tumor resection relative to patients receiving no adjuvant therapy. In addition, a second study presented at the 2005 annual meeting of the American Society of Clinical Oncology reported similarly positive results. Research involving vinorelbine to treat other cancer types, including breast and ovarian cancer, is ongoing. We believe that if ongoing research yields additional positive results, demand may increase for vinorelbine-based treatments, including ANX-530.

We believe ANX-530 is well-positioned as an alternative to Navelbine and its generic equivalents. In post hoc analyses, relative to Navelbine, ANX-530 demonstrated a statistically significant reduction in injection site reactions in our registrational bioequivalence study while maintaining comparable pharmacokinetics. We believe an improved safety profile of ANX-530 will be compelling to healthcare practitioners and patients.

Our market research, conducted among practicing oncologists and oncology nurses, suggests that healthcare practitioners prefer and would use a formulation of vinorelbine that reduced or eliminated injection site reactions while providing comparable efficacy, provided the financial impact to the practitioner of using such a formulation, relative to alternative formulations, is neutral or positive. Furthermore, for a variety of reasons, including anticipated frequent intravenous drug delivery and to avoid injection site reactions and loss of venous access, Navelbine often is administered through a central line, a more invasive procedure in which a catheter is inserted into and left for a period of time in a large vein in the neck, chest or groin. We believe ANX-530 may provide an alternative to placing a central line for those patients for whom central lines are used primarily to avoid injection site reactions.

**ANX-514 (docetaxel emulsion)***Background; Limitations of Taxotere*

ANX-514 is a novel emulsion formulation of the chemotherapy drug docetaxel. Taxotere, a branded formulation of docetaxel, is approved to treat breast, non-small cell lung, prostate, gastric and head and neck cancers. In the U.S., aspects of Taxotere are covered by patents through November 2013.

According to Taxotere's label, patients should be observed closely for hypersensitivity, or allergic, reactions, which may occur within a few minutes following initiation of Taxotere administration. These reactions generally are believed to be associated with polysorbate 80, which is present in Taxotere, and range from mild, including flushing, rash, breathing difficulty and drop in blood pressure, to severe, including generalized rash/erythema, hypotension and, in rare cases, fatal anaphylaxis. Taxotere's label recommends that all patients should be premedicated with oral corticosteroids for three days starting one day prior to Taxotere administration to reduce the severity of



hypersensitivity reactions, among other reasons. Even following premedication, hypersensitivity reactions have been observed, including, very rarely, fatal anaphylaxis.

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ANX-514 is formulated without polysorbate 80 or other detergents and is designed to reduce the incidence and severity of hypersensitivity reactions.

*Preclinical Efficacy and Safety; Data from Bioequivalence Study*

In preclinical testing, we demonstrated that ANX-514 reduced hypersensitivity reactions without impacting pharmacokinetics or antitumor activity when compared to Taxotere. In an animal model, we observed anaphylactic reactions following Taxotere administration, including decreased respiration, swelling and tremors. Furthermore, decreases in blood pressure and increases in histamine levels were observed within 10-20 minutes of Taxotere administration. In contrast, we did not observe hypersensitivity reactions following administration of ANX-514. Specifically, we did not observe treatment-related changes in blood pressure or increases in histamine levels. On rechallenge at three weeks, hypersensitivity reactions were observed only in the Taxotere-treated animals.

In addition, in two separate studies in different animal species, ANX-514 showed equivalent pharmacokinetics to Taxotere. In animal models, ANX-514 demonstrated dose-dependent inhibition of tumor growth with equivalent antitumor activity when compared to Taxotere at equal dose levels.

In April 2008, we initiated enrollment in a registrational bioequivalence study of ANX-514 and, in February 2009, we announced that enrollment in the study was complete. In May 2009, we announced that ANX-514 was determined to have comparable overall safety as Taxotere, with no differences between treatment groups in severe toxicities. However, pharmacokinetic equivalence, the primary endpoint of the study, was not demonstrated based on benchmark regulatory standards.

The study data revealed higher blood-levels of docetaxel during and immediately following infusion of the study drug (i.e., during the first hour of treatment) in patients receiving ANX-514 relative to those receiving Taxotere, but, at 10 minutes after the completion of infusion, docetaxel blood-levels were comparable and remained so through the end of the observation period. We are analyzing these short-term increased levels, which were the reason ANX-514 was outside the bounds established by the FDA for determining bioequivalence. Following preliminary discussions with clinicians and experts in taxane pharmacokinetics, we believe that the increased blood-levels of docetaxel do not affect the safety or efficacy of the drug and are not clinically relevant. We intend to continue to evaluate the data from this study and plan to seek a meeting with the FDA in the fourth quarter of 2009 to discuss the results.

*Market and Opportunity*

Worldwide annual sales of Taxotere in 2007 were approximately \$2.9 billion, making it one of the top-selling anti-cancer agents in the world. Based on its early success, substantial investment into researching the use of Taxotere in new indications has led to numerous label expansions in the U.S. and abroad.

Assuming we are able to demonstrate that the increased blood-levels of docetaxel do not affect the safety or efficacy of docetaxel, we believe ANX-514 is well-positioned as an alternative to Taxotere and any of its future generic equivalents. In established animal models, we demonstrated ANX-514 reduces hypersensitivity reactions relative to Taxotere. Our market research, conducted among practicing oncologists and oncology nurses, suggests a preference for a formulation of docetaxel that reduces hypersensitivity reactions, which are perceived as a significant issue. In addition, patients with a history of allergic reactions to Taxotere, but for whom docetaxel is the best or only therapeutic option, may benefit from ANX-514, particularly as Taxotere's label recommends against rechallenging patients with a history of severe hypersensitivity reactions.

If clinical studies validate our preclinical work, the need to premedicate patients, which is intended to reduce the severity of hypersensitivity reactions, may be reduced or eliminated. Many patients prefer to avoid premedication and the side effects often associated with steroids, which include agitation, altered mental state, sleeplessness and altered blood/sugar levels. In addition, ANX-514 may be well-suited for patients for whom steroid premedication causes other complications, such as diabetics.

In addition to the improved safety and comparable efficacy observed in preclinical testing, ANX-514 may provide nonclinical benefits to patients and healthcare practitioners. ANX-514 is formulated without polysorbate 80, which can present practical problems during administration. Taxotere's label indicates foaming may occur when mixing Taxotere and the accompanying diluent due to the presence of polysorbate 80. Our market research suggests foaming is frequent, which can cause delays in administering the drug or disruption during administration if too much foam is present during administration. Practitioners have also expressed concern that foaming, as well as the physical process

of extracting the initially diluted Taxotere mixture from the mixing vial, may result in patient underdosing.

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Polysorbate 80 also is incompatible with plasticized polyvinyl chloride, or PVC, which is used in making the IV bags and tubing commonly used to infuse chemotherapy drugs. Polysorbate 80 can leach diethylhexyl phthalate, a potentially hepatotoxic and carcinogenic acid, from plasticized PVC bags and tubing, resulting in the addition of diethylhexyl phthalate into the infusion solution. Taxotere's label warns against contact between Taxotere and plasticized PVC equipment and recommends storing the fully-prepared Taxotere mixture in glass or polypropylene bottles or polypropylene or polyolefin plastic bags and administering through polyethylene-lined administration sets. As a result, healthcare providers must have available and remember to use more costly non-PVC supplies to prepare and administer Taxotere, the costs of which generally are not separately reimbursed.

Finally, infusion of the fully-prepared Taxotere mixture should begin within three hours of preparation. Our stability testing suggests fully-prepared ANX-514 is stable for up to 48 hours. In hospital settings, where a central pharmacy may prepare products for administration, the limited stability of the fully-prepared Taxotere mixture may result in expired doses. In addition to wasted product, patients must wait while additional Taxotere is prepared for administration and additional stress is placed on hospital resources, including room availability.

While in the U.S. aspects of Taxotere retain patent protection through November 2013, the active ingredient, docetaxel, loses its patent protection in May 2010; however, if an outstanding request for pediatric exclusivity is granted, this date would be extended by six months. This creates a significant opportunity to develop a formulation of docetaxel that does not infringe any of the remaining Taxotere patents. Without challenging the remaining Taxotere patents, a generic equivalent of Taxotere cannot be approved in the U.S. until November 2013, which could provide other formulations of docetaxel, including ANX-514, over three years (less any period of pediatric exclusivity that may be granted in the future) of marketing in the U.S. before the introduction of Taxotere generic equivalents. We believe this potential lead time over generic competition provides an additional opportunity to establish ANX-514 as an alternative to Taxotere and to establish pricing for ANX-514 prior to the introduction of Taxotere generic equivalents.

**Other Development Programs**

In the past, we spent significant resources on the development of ANX-510, or CoFactor, including a phase 2b clinical trial and a discontinued phase 3 clinical trial in the first line treatment of metastatic colorectal cancer, and a phase 2 clinical trial in the treatment of advanced breast cancer. Following our announcement in October 2007 that the CoFactor/5-FU arm of our phase 2b clinical trial of CoFactor did not demonstrate statistically significant improved safety in the trial's primary endpoint, we discontinued enrolling patients in our phase 3 clinical trial of CoFactor and, in October 2008, we discontinued all active work on Co-Factor.

In 2008, we also discontinued active work on all other compounds (other than ANX-530 and ANX-514) to which we have or had rights and on which we may have previously spent resources developing. We do not plan to resume development activities with respect to CoFactor or any of such other compounds in the next 12 months.

**Competition**

If regulatory authorities approve the marketing and selling of any of our product candidates, they will face significant and long-term competition from pharmaceutical companies, pharmaceutical divisions of companies and biotechnology, biopharmaceutical and specialty pharmaceuticals companies, among others. This competition likely will become more intense if any of our products or competitor products achieve commercial success. Most of our competitors, particularly large pharmaceutical companies, have greater clinical, regulatory, manufacturing, marketing, distribution, compliance and financial resources and experience than we have. Many of these companies have commercial arrangements with other companies to supplement their internal capabilities.

ANX-530 and ANX-514, if approved, may compete against Navelbine and Taxotere, respectively, as well as their generic equivalents and other formulations of vinorelbine and docetaxel. In addition to Navelbine, currently there are at least 6 generic versions of vinorelbine on the market. In the U.S., in May 2010 (but subject to any period of pediatric exclusivity that may be granted in the future), patent protection ends for docetaxel and, in November 2013, patent protection ends for Taxotere. We are aware of two leading generics companies that each have developed or acquired a formulation of docetaxel and have certified that, after May 2010, their respective formulations of docetaxel will not infringe any unexpired Taxotere patents.

Under our current regulatory strategy, because we anticipate submitting NDAs with only bioequivalence data, the ability to differentiate our products from competitor products will be limited. Even if we believe our products demonstrate clinical or pharmacoeconomic benefits, we may be unable to market our products based on these benefits. If our products fail to obtain separate HCPCS codes, we may be required to price our products at levels that do not cover our costs to manufacture, market and distribute the products or provide any profit, or to price our products at levels at which they are not competitive.

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In addition, numerous companies are focused on reformulating currently marketed drugs. In particular, the taxanes, the class of drugs of which Taxotere is a member, have experienced substantial commercial success, in part as a result of their effectiveness in treating a wide variety of cancers. This commercial success has generated significant interest in reformulating Taxotere and other taxanes. In addition to our approach of emulsifying docetaxel, other companies are pursuing alternative delivery vehicles, including the use of albumin nanoparticles, prodrugs, polyglutamates, analogs, co-solvents, liposomes and microspheres. Many of these or similar approaches could be applied to vinorelbine. Relative to our formulations, formulations based on one or more of these other methods may result in greater efficacy or safety, provide better drug delivery to tumor sites or otherwise improve benefits to patients and healthcare providers. For instance, there is an oral formulation of vinorelbine approved for use in the EU against which we would compete if our emulsion formulation of vinorelbine were approved for use in the EU.

Over the longer term, our ability, independently or with a strategic or other partner, to successfully manufacture, market, distribute and sell any of our or their approved products, expand their usage and bring new products to the marketplace will depend on many factors, including, but not limited to, the effectiveness and safety of those products, FDA and foreign regulatory agencies' approvals of new products and indications, the degree of patent protection afforded to particular products and the rates at which those products are reimbursed.

**Manufacturing**

We do not have our own manufacturing facilities. We meet our preclinical and clinical trial manufacturing requirements (including manufacturing active pharmaceutical ingredient, or API, formulating and assembling final drug product, labeling, testing and release, packaging, storing API and finished drug product and similar activities) by establishing relationships with third-party manufacturers and other service providers to perform these services for us. In the past, we relied on individual proposals and purchase orders to meet our needs and typically relied on terms and conditions proposed by the third party or us to govern our rights and obligations under each order (including provisions with respect to intellectual property, if any). In 2008, we entered into a master services agreement with a new contract manufacturer, as well as individual work orders that are governed by the master services agreement, under which the manufacturer will provide process development and scale-up activities for ANX-530 and ANX-514. We do not have any long-term agreements or commitments for these services. Likewise, we do not have any long-term agreements or commitments with vendors to supply the underlying component materials of our product candidates, some of which are available from only a single supplier. In January 2009, as part of on-going cost-containment measures, we substantially reduced or delayed spending on third-party consulting and vendor services, including contract manufacturing. In March 2009, we suspended substantially all of our development activities and fundamental business operations to provide additional time to consummate a strategic transaction or otherwise obtain financing. In June 2009, following the completion of an equity financing in which we raised net proceeds of approximately \$1.7 million, we resumed the final manufacturing activities related to submitting an NDA for ANX-530.

Should any of our product candidates obtain marketing approval, relationships with third-party manufacturers and other service providers in connection with the commercial production of our products would need to be established. There is some flexibility in securing other manufacturers to produce our product candidates; however, our alternatives may be limited due to proprietary technologies or methods used in the manufacture of some of our product candidates. In addition, if we seek to make certain changes to an approved product, such as changing vendors who supply the underlying component materials of our product candidates, we may need FDA review and approval before the change can be implemented.

**Intellectual Property**

*ANX-530* (vinorelbine emulsion)

We own world-wide rights (excluding China, Hong Kong, Macau and Taiwan) to patent applications covering the composition and use of our vinorelbine emulsion product candidate, subject to the exclusive license we granted to Latitude Pharmaceuticals (described below under *Licensing Agreements*). Patent applications, entitled *Compositions for Delivering Highly Water Soluble Drugs*, currently are pending in the U.S., Canada and 13 additional countries, and regional patent applications are also pending in the European Patent Office and the Eurasian Patent Office. These applications have a priority date of July 12, 2004, and any patents granted thereon have an expected expiration date of

July 2025 in the U.S. and July 2025 in the other countries.

*ANX-514* (docetaxel emulsion)

We own world-wide rights (excluding China, Hong Kong, Macau and Taiwan) to patent applications covering the composition and use of our docetaxel emulsion product candidate for the treatment of cancer, subject to the exclusive license we granted to Latitude Pharmaceuticals (described below under *Licensing Agreements* ). Patent applications, entitled *Low Oil Emulsion*

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Compositions for Delivering Taxoids and Other Insoluble Drugs, currently are pending in the U.S., Canada and 9 additional countries, and a regional patent application is also pending in the European Patent Office. These applications have a priority date of September 28, 2004, and any patents granted thereon will expire in September 2025. Patent applications, entitled Vitamin E Succinate Stabilized Pharmaceutical Compositions, Methods for the Preparation and Use Thereof, are also currently pending in the U.S., Canada and 8 additional countries, and regional patent applications are also pending in the European Patent Office and the Eurasian Patent Office. These applications have a priority date of February 1, 2006, and any patents granted on these applications have an expected expiration date in February 2027.

We are aware of a substantial number of patents issued and patent applications filed in our technical areas or fields. There is a risk that third parties may allege that they have patent rights encompassing our product candidates or methods and no assurance can be given that patents do not exist, have not been filed, or could not be filed or issued, which contain claims covering our product candidates or methods.

We cannot provide assurance that our pending patent applications will issue as patents, that any issued patents will provide us with significant competitive advantages, or that the validity or enforceability of any of our patents will not be challenged or, if instituted, that these challenges will not be successful. The cost of litigation to uphold the validity and prevent infringement of our patents could be substantial. Furthermore, we cannot provide assurance that others will not independently develop similar technologies or duplicate our technologies or design around the patented aspects of our technologies. We can provide no assurance that our proposed technologies will not infringe patents or rights owned by others, licenses to which might not be available to us.

In addition, the approval process for patent applications in different countries may differ significantly. The patent authorities in each country administer that country's laws and regulations relating to patents independently of the laws and regulations of any other country and the patents must be sought and obtained separately, which can add substantial cost and expense. In addition, a favorable outcome or approval in one country does not necessarily indicate that a favorable outcome or approval can be obtained in other countries.

**Research and Development**

Our research and development expenses were \$17.9 million in 2008 and \$15.9 million in 2007. Our research and development expenses consist primarily of salaries and related employee benefits, costs associated with bioequivalence and clinical trials managed by contract research organizations, or CROs, and costs associated with non-clinical activities, such as research-related manufacturing, preclinical research studies, quality assurance and regulatory activities. In 2007, our most significant costs were for bioequivalence and clinical trials and, in 2008 our most significant costs were for research-related manufacturing, including the cost of API and other raw materials and components. Our bioequivalence and clinical trial expenses include payments to vendors such as CROs, investigators, clinical suppliers and related consulting. Our research-related manufacturing expenses include purchasing API, manufacturing materials for bioequivalence and clinical trials and stability testing to support regulatory filings and related labeling, testing and release, packaging and storing.

**Licensing Agreements***SD Pharmaceuticals*

In April 2006, we acquired SD Pharmaceuticals, Inc. in exchange for shares of our common stock. Under a prior license agreement between SD Pharmaceuticals, Latitude Pharmaceuticals, Inc. and Andrew X. Chen, the sole owner of Latitude Pharmaceuticals, Dr. Chen had assigned to SD Pharmaceuticals all rights and interests of Dr. Chen and Latitude Pharmaceuticals to certain patents throughout the world other than in China, Hong Kong, Macau and Taiwan. Under this agreement, SD Pharmaceuticals granted back to Latitude Pharmaceuticals a worldwide, exclusive, royalty-free and irrevocable license to use the assigned patents in all fields of use other than certain excluded fields as specified in the agreement. Our rights in ANX-530 (vinorelbine emulsion) and ANX-514 (docetaxel emulsion) arise through our interest in SD Pharmaceuticals. Accordingly, we have no rights in these product candidates in China, Hong Kong, Macau and Taiwan, and our rights under the assigned patents in the rest of the world are limited to the following fields:

For ANX-530, vinca alkaloid intravenous emulsion formulation for cancer treatment and any other disease indication.



For ANX-514, docetaxel intravenous emulsion formulation for cancer treatment and any other disease indication.

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### **Government Regulations**

Governmental authorities in the U.S. and other countries extensively regulate the testing, manufacturing, labeling, storage, recordkeeping, advertising, promotion, export, marketing and distribution, among other things, of pharmaceutical products. In the U.S., the FDA, under the Federal Food, Drug and Cosmetic Act, or FDCA, and other federal statutes and regulations, subjects pharmaceutical products to rigorous review. If we do not comply with applicable requirements, we may be fined, the government may refuse to approve our marketing applications or allow us to manufacture or market our products, and we may be criminally prosecuted.

We and our third-party manufacturers, distributors and CROs may also be subject to regulations under other federal, state, and local laws, including the Occupational Safety and Health Act, the Environmental Protection Act, the Clean Air Act, the Health Insurance Portability and Accountability Act, privacy laws and import, export and customs regulations as well as the laws and regulations of other countries.

#### *FDA Approval Process*

To obtain approval of a new product from the FDA, we must, among other requirements, submit data supporting safety and efficacy as well as detailed information on the manufacture and composition of the product and proposed labeling. The testing and collection of data and the preparation of necessary applications are expensive and time-consuming. The FDA may not act quickly or favorably in reviewing these applications, and we may encounter significant difficulties or costs in our efforts to obtain FDA approvals that could delay or preclude us from marketing our products.

The process required by the FDA before a new drug may be marketed in the U.S. generally involves the following: completion of preclinical laboratory and animal testing in compliance with FDA regulations; submission of an investigational new drug application, which must become effective before human clinical trials may begin; performance of adequate and well-controlled human clinical trials to establish the safety and efficacy of the proposed drug for its intended use; and submission and approval of an NDA by the FDA. The sponsor typically conducts human clinical trials in three sequential phases, but the phases may overlap. In phase 1 clinical trials, the product is tested in a small number of patients or healthy volunteers, primarily for safety at one or more doses. In phase 2, in addition to safety, the sponsor evaluates the efficacy of the product on targeted indications, and identifies possible adverse effects and safety risks, in a patient population somewhat larger than phase 1 clinical trials. Phase 3 clinical trials typically involve additional testing for safety and clinical efficacy in an expanded population at geographically-dispersed test sites.

As a product candidate moves through the clinical phases, manufacturing processes are further defined, refined, controlled and validated. The level of control and validation required by the FDA increases as clinical studies progress.

Clinical trials must be conducted in accordance with the FDA's good clinical practices requirements. The FDA may order the temporary or permanent discontinuation of a clinical trial at any time or impose other sanctions if it believes that the clinical trial is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. An institutional review board, or IRB, generally must approve the clinical trial design and patient informed consent at each clinical site and may also require the clinical trial at that site to be halted, either temporarily or permanently, for failure to comply with the IRB's requirements, or may impose other conditions.

The applicant must submit to the FDA the results of the preclinical and clinical trials, together with, among other things, detailed information on the manufacture and composition of the product and proposed labeling, in the form of an NDA, including payment of a user fee. The FDA reviews all NDAs submitted before it accepts them for filing and may request additional information rather than accepting an NDA for filing. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA. Under the Prescription Drug User Fee Act, or PDUFA, the FDA ordinarily has 10 months in which to complete its initial review of the NDA and respond to the applicant. However, the PDUFA goal dates are not legal mandates and the FDA response often occurs several months beyond the original goal date. The review process and the target response date under PDUFA may be extended if the FDA requests or the NDA sponsor otherwise provides additional information or clarification regarding information already provided in the submission. Following completion of the FDA's initial review of the NDA and the clinical and manufacturing procedures and facilities, the FDA will issue a complete response or action letter, which will either include an approval authorizing commercial marketing of the drug for certain indications or contain the conditions

that must be met in order to secure final approval of the NDA. If the FDA's evaluation of the NDA submission and the clinical and manufacturing procedures and facilities is not favorable, the FDA may refuse to approve the NDA.

**Table of Contents***Section 505(b)(2) New Drug Applications*

As an alternate path to FDA approval for new formulations of previously approved products, a company may file an NDA under Section 505(b)(2) of the FDCA. Section 505(b)(2) was enacted as part of the Drug Price Competition and Patent Term Restoration Act of 1984, otherwise known as the Hatch-Waxman Act. Section 505(b)(2) permits the submission of an NDA where at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference. The Hatch-Waxman Act permits the applicant to rely upon certain published preclinical or clinical studies conducted for an approved product or the FDA's conclusions from prior review of such studies. The FDA may also require companies to perform additional studies or measurements to support the change from the approved product. The FDA may then approve the new product for all or some of the label indications for which the referenced product has been approved, as well as for any new indication sought by the Section 505(b)(2) applicant. While references to preclinical and clinical data not generated by the applicant or for which the applicant does not have a right of reference are allowed, all development, process, stability, qualification and validation data related to the manufacturing and quality of the new product must be included in an NDA submitted under Section 505(b)(2) of the FDCA. Our regulatory strategy for both ANX-530 and ANX-514 involves submitting NDAs under Section 505(b)(2).

To the extent that the Section 505(b)(2) applicant is relying on the FDA's conclusions regarding studies conducted for an already approved product, the applicant is required to certify to the FDA concerning any patents listed for the approved product in the FDA's Orange Book publication. Specifically, the applicant must certify that: (i) the required patent information has not been filed; (ii) the listed patent has expired; (iii) the listed patent has not expired, but will expire on a particular date and approval is sought after patent expiration; or (iv) the listed patent is invalid or will not be infringed by the new product. A certification that the new product will not infringe the already approved product's listed patents or that such patents are invalid is called a paragraph IV certification. If the applicant does not challenge the listed patents, the Section 505(b)(2) application will not be approved until all the listed patents claiming the referenced product have expired. The Section 505(b)(2) application also will not be approved until any non-patent exclusivity, such as exclusivity for obtaining approval of a new chemical entity, listed in the Orange Book for the referenced product has expired.

If the applicant has provided a paragraph IV certification to the FDA, the applicant must also send notice of the paragraph IV certification to the NDA and patent holders for the referenced product once the applicant's NDA has been accepted for filing by the FDA. The NDA and patent holders may then initiate a legal challenge to the paragraph IV certification. The filing of a patent infringement lawsuit within 45 days of their receipt of a paragraph IV certification automatically prevents the FDA from approving the Section 505(b)(2) NDA until the earlier of 30 months, expiration of the patent, settlement of the lawsuit or a decision in the infringement case that is favorable to the Section 505(b)(2) applicant. Thus, the Section 505(b)(2) applicant may invest a significant amount of time and expense in the development of its products only to be subject to significant delay and patent litigation before its products may be commercialized. Alternatively, if the listed patent holder does not file a patent infringement lawsuit within the required 45-day period, the applicant's NDA will not be subject to the 30-month stay. A paragraph IV certification would be required in connection with a Section 505(b)(2) NDA for ANX-514 that is filed before November 2013.

*Other Regulatory Requirements*

Even if the FDA approves one or more of our product candidates, we will continue to be subject to a number of post-approval regulatory requirements. If we seek to make certain changes to an approved product, such as the addition of a new labeled indication or making certain manufacturing changes or product enhancements, we will need FDA review and approval before the change can be implemented. While physicians may use products for indications that have not been approved by the FDA, we may not label or promote the product for an indication that has not been approved. Securing FDA approval for new indications or product enhancements and, in some cases, for labeling claims or changes in manufacturing, is generally a time-consuming and expensive process that may require us to conduct clinical studies under the FDA's investigational new drug regulations. Even if such studies are conducted, the FDA may not approve any change in a timely fashion, or at all. In addition, adverse experiences associated with use of the products must be reported to the FDA, and FDA rules govern how we can label, advertise or otherwise

commercialize our products. The FDA also may, in its discretion, require post-marketing testing and surveillance to monitor the effects of approved products or place conditions on any approvals that could restrict the commercial applications of these products.

In addition to FDA restrictions on marketing of pharmaceutical products, several other types of state and federal laws have been applied to restrict certain marketing practices in the pharmaceutical industry in recent years. These laws include anti-kickback statutes and false claims statutes. The federal healthcare program anti-kickback statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item or service reimbursable under Medicare, Medicaid or other federally financed healthcare programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one

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hand and prescribers, purchasers and formulary managers on the other. Violations of the anti-kickback statute are punishable by imprisonment, criminal fines, civil monetary penalties and exclusion from participation in federal healthcare programs. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, the exemptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exemption or safe harbor.

Federal false claims laws prohibit any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to have a false claim paid. Recently, several pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly inflating drug prices they report to pricing services, which in turn are used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws. The majority of states also have statutes or regulations similar to the federal anti-kickback law and false claims laws, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

In addition, we and the third-party manufacturers on which we rely for the manufacture of our products or their respective underlying components (including API) are subject to requirements that drugs be manufactured, packaged and labeled in conformity with current Good Manufacturing Practices promulgated by the FDA, or cGMP. To comply with cGMP requirements, manufacturers must continue to spend time, money and effort to meet requirements relating to personnel, facilities, equipment, production and process, labeling and packaging, quality control, recordkeeping and other requirements. The FDA periodically inspects drug manufacturing facilities to evaluate compliance with cGMP requirements.

Also, as part of the sales and marketing process, pharmaceutical companies frequently provide samples of approved drugs to physicians. This practice is regulated by the FDA and other governmental authorities, including, in particular, requirements concerning recordkeeping and control procedures.

Outside of the U.S., the ability to market our products will also depend on receiving marketing authorizations from the appropriate regulatory authorities. The foreign regulatory approval process includes all of the risks associated with the FDA approval described above. In addition, the requirements governing the conduct of clinical trials and marketing authorization vary widely from country to country, and the time may be longer or shorter than that required for FDA approval. In addition, regulatory approval of prices is required in most countries other than the U.S. We face the risk that the resulting prices would be insufficient to generate an acceptable return to us or any collaborator of ours.

**Employees**

We have two employees, our chief business officer and senior vice president and our general counsel, secretary and vice president, legal, both of whom are full-time. Our employees are not unionized and we believe that our relationship with our employees is good. We engage a number of consultants, vendors and contract organizations to assist us with our research and development activities, including research-related manufacturing and regulatory affairs, and our selling, general and administrative activities, such as finance, accounting, human resources, marketing, legal and investor relations.

**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. We are not currently involved in any material legal proceedings.

**Facilities**

Our offices are located at 6725 Mesa Ridge Road, San Diego, California 92121. Our offices consist of 12,038 square feet of primarily office space, which we use pursuant to a lease that will expire on August 31, 2009. The base rent for this space currently is \$262,000 annually, excluding incremental operating cost adjustments.

We are negotiating a 9-month extension under our existing lease agreement, beginning September 1, 2009, for a portion of our existing office space, which would consist of approximately 3,173 square feet. The aggregate rent for

this portion of our existing offices for the extended term of the lease agreement would be approximately \$33,000.

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**Available Information**

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 are available free of charge on our corporate website ([www.adventrx.com](http://www.adventrx.com)) as soon as reasonably practicable after they are filed with, or furnished to, the Securities and Exchange Commission.



**Table of Contents****MANAGEMENT****Management and Board of Directors**

Our executive officers and directors, their ages and positions as of July 22, 2009 are as follows:

| <b>Name</b>         | <b>Age</b> | <b>Position/Affiliation</b>  |
|---------------------|------------|--|
| Brian M. Culley     | 38         | Interim Principal Executive Officer, Chief Business Officer and Senior Vice President                    |
| Patrick L. Keran    | 38         | Interim Principal Financial and Accounting Officer, General Counsel, Secretary and Vice President, Legal |
| Jack Lief           | 63         | Chairman of the Board  |
| Mark N.K. Bagnall   | 52         | Director   |
| Alexander J. Denner | 40         | Director   |
| Michael M. Goldberg | 50         | Director   |
| Mark J. Pykett      | 45         | Director   |
| Eric K. Rowinsky    | 52         | Director   |

**Executive Officers**

*Brian M. Culley, M.S., M.B.A.* Mr. Culley currently is the Company's interim principal executive officer, a position he has held since February 2009, and chief business officer and a senior vice president, positions he has held since January 2007. Mr. Culley served as vice president, business development since joining the Company in December 2004, and was appointed senior vice president, business development in February 2006. From 2002 until 2004, Mr. Culley managed all strategic collaborations and licensing agreements for Immusol, Inc. in San Diego, where his most recent title was director of business development and marketing. From 1999 until 2000, he was a licensing and marketing associate at the University of California, San Diego, department of technology transfer & intellectual property services and from 1996 to 1999, he was a research associate for Neurocrine Biosciences, Inc., where he performed drug discovery research. Mr. Culley has over 15 years of experience in the biotechnology industry, including deal structure and negotiation, licensing, due diligence, market and competitive research, and venture funding. He received a B.S. in biology from Boston College, an M.S. in biochemistry from the University of California, Santa Barbara and an M.B.A. from The Johnson School of Business at Cornell University with an emphasis on private equity and entrepreneurship.

*Patrick L. Keran, J.D.* Mr. Keran currently is the Company's interim principal financial and accounting officer, a position he has held since July 2009, general counsel, a position he has held since August 2006, secretary, a position he has held since September 2006, and vice president, legal, a position he has held since January 2007. From April 2004 to August 2006, Mr. Keran was associate general counsel at Isis Pharmaceuticals, a publicly held drug discovery and development company. From February 2003 to April 2004, Mr. Keran practiced corporate law at the law firm of Heller Ehrman LLP, specializing in public and private financings, licensing arrangements, mergers and acquisitions and corporate governance matters. From September 1999 to February 2003, Mr. Keran practiced law at the law firm of Brobeck Phleger & Harrison LLP where he had a similar corporate practice. Mr. Keran is licensed to practice law in the State of California. Mr. Keran received a B.A. from the University of California at San Diego and a J.D. from the University of California at Berkeley, Boalt Hall School of Law.

**Board of Directors**

*Mark N.K. Bagnall, C.P.A.* Mr. Bagnall has served as a director since February 2004. Mr. Bagnall currently serves as president of ProGenTech Limited, a life science and molecular diagnostics company committed to developing next generation instrumentation for nucleic acid and protein purification and molecular diagnostic testing, a position he has held since July 2009. From March 2009 to July 2009, Mr. Bagnall served as chief financial officer of ProGenTech

Limited. Mr. Bagnall has held senior management positions in the biotechnology industry for over 20 years. During his time in the industry, he has held positions in both finance and business development and has managed equity and debt financings, corporate partnering and licensing deals and mergers and acquisitions transactions. From April 2008 to December 2008, Mr. Bagnall served as the Company's chief financial officer, executive vice president and treasurer, and from November 2008 to December 2008, he served as interim principal executive officer. Since December 2008, he has served as a consultant to the Company, and from February 2009 to July 2009, he served as the Company's interim principal financial and accounting officer. From June 2000 to June 2007, Mr. Bagnall served as senior vice president and chief finance and operations officer of Metabolex, Inc., a biotechnology company dedicated to the discovery and development of novel therapeutics for diabetes and related metabolic disorders. Prior to joining Metabolex, Mr. Bagnall held the top financial position at four life science companies: Metrika, Inc., a privately held diagnostics company, and three publicly held

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biotechnology companies, Progenitor, Inc., Somatix Therapy Corporation, and Hana Biologics, Inc. Mr. Bagnall is a director of VIA Pharmaceuticals, Inc., a publicly held biotechnology company focused on the development of compounds for the treatment of cardiovascular disease. In addition, he is a co-founder and director of the Association of Bioscience Financial Officers, an international organization of life science finance professionals. Mr. Bagnall received his B.S. in Business Administration from the University of California at Berkeley, Haas School of Business and is a Certified Public Accountant.

*Alexander J. Denner, Ph.D.* Dr. Denner has served as a director since October 2006. Dr. Denner currently serves as managing director of entities affiliated with Carl C. Icahn, including Icahn Partners, Icahn Master, Icahn Master II and Icahn Master III. Icahn Partners, Icahn Master, Icahn Master II and Icahn Master III are private investment funds. Dr. Denner has served in this position since August 2006. From April 2005 to May 2006, Dr. Denner served as a portfolio manager specializing in healthcare investments for Viking Global Investors. Previously, he served in a variety of roles at Morgan Stanley, beginning in 1996, including as portfolio manager of healthcare and biotechnology mutual funds. Dr. Denner is a director of Biogen Idec Inc., a publicly held global biotechnology company that creates new standards of care in therapeutic areas with high unmet medical needs, and Amylin Pharmaceuticals, Inc., a publicly held biopharmaceutical company committed to improving the lives of people with diabetes, obesity and other diseases through the discovery, development and commercialization of innovative medicines. Dr. Denner was the chairman of the executive committee of ImClone Systems Incorporated, a publicly held biopharmaceutical company, and a director from April 2006 until the company was purchased in November 2008. Dr. Denner received his S.B. degree from the Massachusetts Institute of Technology and his M.S., M.Phil. and Ph.D. degrees from Yale University. Dr. Denner was nominated by, among others, entities affiliated with Carl C. Icahn. Information regarding the arrangement by which Dr. Denner was selected as a director is located below under *Director Arrangements*.

*Michael M. Goldberg, M.D.* Dr. Goldberg has served as a director since January 2004. Dr. Goldberg currently is a managing partner of Montaur Capital Partners, an investment firm, a position he has held since January 2007. From August 1990 to January 2007, Dr. Goldberg was chairman and chief executive officer of Emisphere Technologies, Inc., a biopharmaceutical company. Prior to this, Dr. Goldberg was a vice president for The First Boston Corporation, where he was a founding member of the Healthcare Banking Group. He received a B.S. from Rensselaer Polytechnic Institute, an M.D. from Albany Medical College of Union University and an M.B.A. from Columbia University Graduate School of Business.

*Jack Lief.* Mr. Lief has served as a director since September 2006 and as chair of the Board since May 2007. Mr. Lief is a co-founder and since April 1997 has served as president, chief executive officer and a director of Arena Pharmaceuticals, Inc., a publicly held clinical-stage biopharmaceutical company focused on the discovery, development and commercialization of small molecule drugs targeting G protein-coupled receptors. From 1995 to April 1997, Mr. Lief served as an advisor and consultant to numerous biopharmaceutical organizations. From 1989 to 1994, Mr. Lief served as senior vice president, corporate development and secretary of Cephalon, Inc., a biopharmaceutical company. From 1983 to 1989, Mr. Lief served as director of business development and strategic planning for Alpha Therapeutic Corporation, a manufacturer of biological products. Mr. Lief joined Abbott Laboratories, a pharmaceutical company, in 1972, where he served until 1983, most recently as the head of international marketing research. Mr. Lief is a director of Accometrics, Inc., a developer and marketer of diagnostic tests, ReqMed Company, Ltd., a provider of partnering opportunities, R&D strategies and bio-venture funding, and TaiGen Biotechnology Co., Ltd., a biotechnology company. Mr. Lief is also an executive board member of BIOCOM, a life science industry association representing more than 450 member companies in San Diego and Southern California, and he was the chairman of BIOCOM from March 2005 to March 2006. Mr. Lief holds a B.A. from Rutgers University and an M.S. in Psychology (Experimental and Neurobiology) from Lehigh University.

*Mark J. Pykett, Ph.D., M.B.A., V.M.D.* Dr. Pykett has served as a director since February 2004. Dr. Pykett currently is president and chief operating officer of Alseres Pharmaceuticals, Inc. (formerly Boston Life Sciences, Inc.), positions he has held since November 2004. From May 1996 until April 2003, Dr. Pykett served as president and chief executive officer and a director of Cytomatrix, LLC, a privately held biotechnology company focused on the research, development and commercialization of novel cell-based therapies that Dr. Pykett co-founded. Cytomatrix was acquired by Cordlife, Pte. Ltd., a subsidiary of CyGenics Ltd., a publicly held biotechnology company listed on the

Australian Stock Exchange. From April 2003 to February 2004, Dr. Pykett served as president of Cordlife and then as president and director of CyGenics from February 2004 until November 2004. In addition, Dr. Pykett served as a director of Cordlife from April 2003 through November 2005 and a director of Oramax, LLC, a development stage dental implant company developing biomaterials for dental prostheses, from 2000 through 2006. Dr. Pykett graduated Phi Beta Kappa, Summa Cum Laude from Amherst College, holds a veterinary degree, Phi Zeta, Summa Cum Laude, a doctorate in molecular biology from the University of Pennsylvania, and received an M.B.A., Beta Gamma Sigma, from Northeastern University. He completed post-doctoral fellowships at the University of Pennsylvania and Harvard University. Dr. Pykett held an adjunct faculty position at the Harvard School of Public Health from 1997 to 2004.

*Eric K. Rowinsky, M.D.* Dr. Rowinsky has served as a director since February 2008. Dr. Rowinsky currently is chief medical

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officer, a position he has held since February 2005, and executive vice president, a position he has held since December 2007, of ImClone Systems Incorporated, a wholly-owned subsidiary of Eli Lilly and Company. Dr. Rowinsky held the position of director of the Institute of Drug Development ( IDD ) at the Cancer Therapy and Research Center from 2002 to 2004 and was the director of clinical research at the IDD from 1996 to 2002. In addition, he held the SBC Endowed Chair for Early Drug Development at the IDD. From 1996 to 2006, Dr Rowinsky was also a clinical professor of medicine (division of medical oncology) at the University of Texas Health Science Center, San Antonio, Texas. Dr. Rowinsky also served as an associate professor of oncology at Johns Hopkins University from 1988 until 1996. He served on the Board of Scientific Counselors of the National Cancer Institute from 2004 to 2007. Dr. Rowinsky received a B.A. degree from New York University and an M.D. degree from the Vanderbilt University School of Medicine. Following his residency in internal medicine, he completed fellowship training in medical oncology at the Johns Hopkins University School of Medicine.

There are no family relationships among any of the Company s directors or executive officers.

**Director Arrangements**

Pursuant to that certain Rights Agreement, dated July 27, 2005, as amended, or the Rights Agreement, we are required to cause our board of directors to nominate to our board of directors an individual, who we refer to as the Purchaser Designee, selected by the Purchasers who at the time own a majority of the Purchased Shares. Dr. Denner is the current Purchaser Designee. Purchasers, as defined in the Rights Agreement, refers to those entities that purchased our common stock and warrants in a private transaction in July 2005. Purchased Shares, as defined in the Rights Agreement, refers to those shares of common stock outstanding and issuable upon exercise of warrants issued to the Purchasers in connection with July 2005 transaction. The Purchasers right to select a Purchaser Designee for nomination to our board of directors shall terminate upon the earlier of (i) July 27, 2012, (ii) the date that the Purchasers aggregate holdings of Purchased Shares (either of record or beneficially) is, as a result of sales or other dispositions thereof, equal to less than 50% of the aggregate number of shares purchased by the Purchasers in connection with the July 2005 transaction, and (iii) at the time of a change of control of our company.

Pursuant to that certain Second Amendment to Rights Agreement, dated February 25, 2008, or the Second Amendment, the Rights Agreement was amended to allow our board of directors to increase the authorized number of directors from six to seven if the vacancy created by such action was filled by a majority of the directors then in office, which majority must include the Purchaser Designee (as defined in the Rights Agreement), if any; provided that, if at any time there are seven members of our board of directors and one of such members is removed, resigns, retires or dies and the Purchaser Designee, if any, does not approve a successor, we will do those things reasonably necessary and within our control to, as soon as reasonably practicable after the effective date of such removal, resignation, retirement or death, set the authorized number of our board of directors at six. The Second Amendment confirmed that Dr. Denner, and not Dr. Rowinsky, is the Purchaser Designee. Following the resignation of Evan M. Levine as a member of our board of directors in December 2008, our board of directors set the authorized number of directors constituting our board of directors at six.

**Board Composition**

Our bylaws allow the authorized number of directors to be not less than three or more than nine; currently, the size of our board of directors is set at six. Each of our directors serves a one-year term and are elected at each year s annual meeting of stockholders. Our board of directors has determined that Dr. Denner, Dr. Goldberg, Mr. Lief, Dr. Pykett and Dr. Rowinsky are independent under the rules of the NYSE Amex (formerly, the American Stock Exchange). Before his employment by us in April 2008, Mr. Bagnall was also independent under the rules of the NYSE Amex. Under applicable rules of the NYSE Amex and the Securities and Exchange Commission, or the SEC, the existence of certain transactions above certain thresholds between a director and our company are required to be disclosed and preclude a finding by our board of directors that the director is independent. In addition to transactions required to be disclosed under these NYSE Amex and SEC rules, in making its independence determination with respect to Dr. Denner, our board of directors considered Dr. Denner s position with entities affiliated with Mr. Icahn and such entities (a) ownership position in our company and (b) rights under the Rights Agreement, pursuant to which such entities, along with others, are, among other things, entitled to participate in future sales by us of additional securities and cause our board of directors to nominate to our board of directors an individual selected by them. After

considering these relationships and transactions, our board of directors concluded that they did not interfere with Dr. Denner's ability to exercise independent judgment in carrying out his responsibilities as a member of our board of directors.

**Meetings and Meeting Attendance**

During 2008, our board of directors met seventeen times, the audit committee of our board of directors met seven times and

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action was taken by unanimous written consent once, the compensation committee of our board of directors met seven times, the nominating and governance committee of our board of directors met three times and action was taken by unanimous written consent once and the research and development committee of our board of directors met three times. During 2008, each member of our board of directors nominated for re-election attended 75% or more of the aggregate of (i) the total number of meetings of our board of directors held during the period of such member's service and (ii) the total number of meetings of committees on which such member served, during the period of such member's service, except that Dr. Goldberg attended five, or approximately 71%, of the total number of audit committee meetings held during 2008. We encourage all directors to attend our annual stockholder meetings. Messrs. Bagnall, Levine and Lief attended our 2008 annual meeting of stockholders and Mr. Lief attended our 2009 annual meeting of stockholders.

**Committees of the Board**

Our board of directors currently has standing audit, compensation and nominating and governance committees. In February 2008, the Board created a research and development committee.

*Audit Committee.* The audit committee currently consists of Mr. Lief (chair), Dr. Goldberg and Dr. Pykett. During 2008 until his employment by us in April 2008, Mr. Bagnall served as a member and chair of the audit committee. Our board of directors has determined that all members of the audit committee are independent directors and meet the eligibility standards for audit committee service under the rules of the NYSE Amex. Our board of directors has determined that Mr. Lief qualifies as an audit committee financial expert as defined by the rules of the SEC. The purpose of the audit committee is to oversee our accounting and financial reporting processes and audits of our financial statements. The responsibilities of the audit committee include appointing and providing for the compensation of the independent accountants to conduct the annual audit of our accounts, reviewing the scope and results of the independent audits, reviewing and evaluating internal accounting policies, and approving all professional services to be provided to us by our independent accountants. The audit committee is governed by a written charter approved by our board of directors.

*Compensation Committee.* The compensation committee currently consists of Dr. Goldberg (chair), Dr. Denner and Mr. Lief. During 2008 until May 2008, Dr. Pykett served as a member of the compensation committee. Our board of directors has determined that all members of the compensation committee are independent directors under the rules of the NYSE Amex. The compensation committee administers our benefit plans, reviews, approves and administers all compensation arrangements for executives, and establishes and reviews general policies relating to the compensation and benefits of our executives and other personnel. The compensation committee meets several times a year and consults with independent compensation consultants, as it deems appropriate, to review, analyze and set compensation packages for our executives. The compensation committee is governed by a written charter approved by our board of directors.

Under its charter, the compensation committee has authority to determine the amount and form of compensation paid to our chief executive officer, and to take such action, and to direct us to take such action, as is necessary and advisable to compensate our chief executive officer in a manner consistent with its determinations, and shall deliberate and vote on all such actions outside the presence of our chief executive officer. In accordance with its charter, the compensation committee will review at least annually the performance of our chief executive officer, including in light of any goals and objectives established for such performance, and in light of such review determine his or her compensation.

The compensation committee has authority to determine the amount and form of compensation paid to our other executives, employees, consultants and advisors and to review the performance of such persons in order to determine appropriate compensation. The compensation committee has authority to take such action, and to direct us to take such action, as is necessary and advisable to compensate such persons and to implement such policies and practices in a manner consistent with its determinations. The compensation committee may delegate its authority on these matters with regard to our non-executive employees to our officers and other appropriate supervisory personnel, subject to applicable law and regulations.

Except with respect to its responsibilities regarding setting compensation for our chief executive officer and our other executives, the compensation committee may delegate its authority to individual members of the compensation

committee or other members of our board of directors. In addition, to the extent permitted by applicable law and regulations, the compensation committee may delegate to one or more of our officers (or other appropriate supervisory personnel) the authority to grant stock options, stock appreciation rights, restricted stock units and performance units to employees (who are not officers or members of our board of directors) of ours or of any subsidiary of ours; provided, however that (a) the number of shares of our common stock underlying such options, stock appreciation rights, restricted stock units and performance units are consistent with guidelines previously approved by the compensation committee; (b) the per-share exercise or purchase price of such awards equals the fair market value of our common stock on the date of grant; and (c) the vesting and other terms that apply to such awards are the same terms as apply under our standard



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form of agreement under the applicable equity compensation plan, provided that such officer(s) may, in such officer(s) discretion, grant awards that are fully vested on the date of grant of the award or grant awards with more restrictive vesting requirements.

Historically, including in 2008, our chief executive officer reviewed and assessed the performance of our other executive officers for the preceding year in the first quarter of each year and subsequently made recommendations to the compensation committee regarding the amount and form of those officers' compensation packages for the current year. The compensation committee generally gives substantial deference to our chief executive officer's recommendations because the members of that committee generally believe the chief executive officer is in the best position to evaluate the other executive officers' past performance and anticipated contributions. From September 2004 until the end of his employment relationship with us in October 2008, our chief executive was Mr. Levine. During the first quarter of 2008, Mr. Levine evaluated the 2007 performance of our other executive officers and, based on those officers' individual performance and anticipated contributions and our 2007 performance and 2008 goals and projections, made recommendations as to 2008 compensation for those executive officers to the compensation committee. The compensation committee took Mr. Levine's recommendations into consideration, according them substantial deference, in setting the executive officers' 2008 compensation.

In February 2007, the compensation committee retained Frederic W. Cook & Co., Inc., a nationally-recognized compensation consulting firm, to provide an independent evaluation of our compensation practices. The compensation committee retained responsibility and authority over the scope of services provided by F.W. Cook and F.W. Cook reported and was responsible to the compensation committee. In connection with retaining F.W. Cook, the compensation committee charged F.W. Cook with, among other things, conducting a competitive assessment of our executive compensation practices, in particular those applicable to our chief executive officer, which included assisting the compensation committee in identifying a peer group of companies against which to evaluate the competitiveness of our executive compensation packages. In February 2007, F.W. Cook completed its analysis of our chief executive officer's compensation and, in May 2007, completed its analysis of our other executive officers' compensation. Other than reviewing with the compensation committee the results of its analysis and providing corresponding written reports, the compensation committee generally did not involve F.W. Cook in its 2007 compensation determinations. In connection with determining 2008 executive compensation, the compensation committee reviewed and evaluated the information previously provided by F.W. Cook and contacted F.W. Cook with certain specific questions, but otherwise did not involve F.W. Cook in its 2008 compensation determinations.

*Nominating and Governance Committee.* The nominating and governance committee currently consists of Dr. Pykett (chair) and Dr. Rowinsky, each of whom our board of directors has determined is an independent director under the rules of the NYSE Amex. During 2008 and until May 2008, Dr. Goldberg and Mr. Lief served on the nominating and governance committee. The nominating and governance committee's responsibilities include recommending to our board of directors nominees for possible election to our board of directors and providing oversight with respect to corporate governance and succession planning matters. The nominating and governance committee is governed by a written charter approved by our board of directors.

*Research and Development Committee.* Currently, the sole member and chair of the research and development committee is Dr. Rowinsky. The research and development committee assists our board of directors in evaluating our basic scientific and manufacturing research, clinical development and regulatory affairs and the allocation of our resources.

Charters for the audit, compensation and nominating and governance committees of our board of directors, as well as our corporate governance guidelines, are posted on our corporate website at: [www.adventrx.com](http://www.adventrx.com).

*The information contained in this prospectus with respect to the charters of each of the audit committee, the compensation committee, and the nominating and governance committee and the independence of the non-management members of our board of directors shall not be deemed to be soliciting material or to be filed with the SEC, nor shall the information be incorporated by reference into any future filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent that we specifically incorporate it by reference in a filing.*

**Code of Ethics**

We have adopted a code of ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or persons performing similar functions, as well as all of our other officers, directors and employees. This code of ethics is a part of our code of business conduct and ethics and available on our corporate website at [www.adventrx.com](http://www.adventrx.com). We intend to disclose future amendments to, or waivers of, certain provisions of our code of ethics that apply to our principal executive officer, principal financial officer, principal accounting officer or persons performing similar functions on the above website within four business days following such amendment or waiver.

**Table of Contents****EXECUTIVE & DIRECTOR COMPENSATION****Summary Compensation Table**

The following table sets forth information concerning compensation earned for services rendered to us during the years ended December 31, 2008 and December 31, 2007 by (i) each individual serving as principal executive officer during 2008, (ii) the two most highly compensated executive officers, other than the individuals serving as the principal executive officer, who were serving as executive officers as of December 31, 2008, and (iii) the individuals who would have qualified under the foregoing clause (ii) but for the fact that such individuals were not serving as executive officers as of December 31, 2008. Collectively, these individuals are referred to as the Named Executive Officers.

| Name and Principal Position(1)                         | Year | Salary    | Bonus     | Nonqualified Non-Deferred Incentive Compensation |                  | Other Compensation(3) | Total     |
|--|------|-----------|-----------|--|------------------|-----------------------|-----------|
|  |      |           |           | Stock Awards(4)                                  | Option Awards(5) |                       |           |
| Brian M. Culley<br>Chief Business Officer              | 2008 | \$262,500 |           | \$183,493  |                  | \$13,989              | \$459,982 |
| Patrick Keran<br>General Counsel                       | 2007 | \$250,000 |           | \$235,852  |                  | \$9,162               | \$495,014 |
| Patrick Keran<br>General Counsel                       | 2008 | \$231,000 |           | \$121,708  |                  | \$13,758              | \$366,466 |
| Evan M. Levine<br>Former Chief Executive Officer       | 2008 | \$381,635 |           |  |                  | \$493,685(4)          | \$875,320 |
| Mark N.K. Bagnall(5)<br>Former Chief Financial Officer | 2007 | \$450,000 | \$200,000 |  |                  | \$9,180               | \$659,180 |
| Gregory P. Hanson<br>Former Chief Financial Officer    | 2008 | \$258,462 |           | \$37,599(6)                                      |                  | \$97,791(7)           | \$393,852 |
| Joan M. Robbins<br>Former Chief Scientific Officer     | 2008 | \$67,308  |           | \$38,194   |                  | \$341,498(8)          | \$447,000 |
|  | 2007 | \$250,000 |           | \$149,498  |                  | \$10,188              | \$409,686 |
|  | 2008 | \$224,740 |           | \$181,994  |                  | \$86,110(9)           | \$492,844 |
|  | 2007 | \$265,000 |           | \$192,095  |                  | \$9,270               | \$466,365 |

(1) Mr. Culley and Mr. Keran held the positions listed in the table through December 31, 2008. On April 2, 2008, Mr. Hanson's employment with us ended. On October 14, 2008, Dr. Robbins' employment with us ended. On October 17, 2008, Mr. Levine's employment with us ended and, on December 22, 2008, Mr. Levine resigned from our board of directors.

On December 26, 2008, Mr. Bagnall's employment with us ended, though he remains on our board of directors. Compensation information for Mr. Keran and Mr. Bagnall for 2007 is not included because they were not 2007 named executive officers.

- (2) The value of the option awards has been computed in accordance with the provisions of FAS 123R, which requires that we recognize as compensation expense the value (excluding the effect of assumed forfeiture rates) of all share-based awards, including stock options, granted to employees in exchange for services over the requisite service period, which is typically the vesting period. For more information, including the assumptions made in calculating the FAS 123R value of the option awards, see Note 8 of the Notes to Consolidated Financial Statements contained in our

Annual Report on Form 10-K filed with the SEC on March 27, 2009 and Note 9 of the Consolidated Financial Statements contained in our Annual Report on Form 10-K filed with the SEC on March 17, 2008.

- (3) Except as otherwise indicated, consists of (a) matching contributions made pursuant to our tax-qualified 401(k) plan and (b) premiums paid for term life insurance policies for the benefit of our executives.
  
- (4) Consists of (a) matching contributions pursuant to our 401(k) plan of \$12,519, (b) life insurance premiums of \$145, (c) severance payments of \$365,000, (d) a severance-related health benefit allowance of \$19,870, and (e) accrued vacation benefits paid in connection with termination of employment of \$90,865. See Narrative Disclosure to Summary

Compensation  
Table below for  
additional  
information  
regarding  
termination-related  
payments.

- (5) Mr. Bagnall served as our chief financial officer, executive vice president and treasurer from April 3, 2008 to December 26, 2008. From November 3, 2008 to December 26, 2008, Mr. Bagnall additionally served as our principal executive officer. Both prior to and after his service as an employee, he served as a member of our board of directors and, after his service as an employee, he served as a consultant to us.
- (6) Consists of the value of an option award to Mr. Bagnall in 2007 as a member of our board of directors.
- (7) Consists of  
(a) matching contributions pursuant to our 401(k) plan of \$13,800, (b) life insurance premiums of \$345, (c) accrued

vacation benefits  
paid in connection  
with termination of  
employment of  
\$19,683, (d) the  
value of the partial  
acceleration of an  
option award  
triggered by  
termination of  
employment of  
\$49,863, and  
(e) non-employee  
director fees for  
service on our  
board of directors  
during the periods  
in 2008 in which  
Mr. Bagnall was  
not employed by us  
of \$14,100.  
Mr. Bagnall  
received severance

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and a health benefit allowance in connection with the termination of his employment, but these payments were not paid or accrued to Mr. Bagnall in 2008 because we did not enter into a separation agreement with Mr. Bagnall until January 2009. See Narrative Disclosure to Summary Compensation Table below for additional information regarding termination-related payments.

- (8) Consists of
- (a) matching contributions pursuant to our 401(k) plan of \$4,038,
  - (b) life insurance premiums of \$320,
  - (c) severance payments of \$125,000,
  - (d) a severance-related health benefit allowance of \$20,997,
  - (e) the value of the partial acceleration of an option award triggered by termination of employment of \$174,272,
  - (f) accrued vacation



benefits paid in connection with termination of employment of \$16,496, and (g) consulting fees of \$375. See Narrative Disclosure to Summary Compensation Table below for additional information regarding termination-related payments.

- (9) Consists of (a) matching contributions pursuant to our 401(k) plan of \$12,519, (b) life insurance premiums of \$218, (c) severance payments of \$22,475, (d) a severance-related health benefit allowance of \$1,511, and (e) accrued vacation benefits paid in connection with termination of employment of \$49,387. See Narrative Disclosure to Summary Compensation Table below for additional information regarding termination-related payments.

**Narrative Disclosure to Summary Compensation Table**

***Current Base Salary; Employment and Severance Arrangements with Currently Employed Named Executive Officers***

In July 2009, the compensation committee of our board of directors adjusted the annual base salaries of Mr. Culley and Mr. Keran to, respectively, \$315,000 and \$289,000, which adjustments were retroactive to January 1, 2009.

Each of Mr. Culley's and Mr. Keran's employment with us is at-will and, as of December 31, 2008, we had no obligation to pay such officer any severance or other benefits, other than as may be required by law, in connection with a termination of employment. In July 2009, we adopted a 2009 mid-year incentive plan and a retention and severance plan. We believe these plans are necessary to incentivize and retain our remaining officers, who are also our remaining employees, and reinforce their dedication to us during a period when they would otherwise likely seek alternative employment. As a part of adopting these plans, we terminated the retention and incentive agreements we entered into with each of Mr. Culley and Mr. Keran in January 2009 and the awards of restricted stock units, representing the right to receive 1,200,000 and 850,000 shares, respectively, of our common stock, that we granted to Mr. Culley and Mr. Keran in January 2009.

Under the incentive plan, each of Mr. Culley and Mr. Keran are eligible for incentive awards based upon the achievement of corporate performance objectives in effect at the end of 2009. Awards generally will be paid in cash. The potential award of each of Mr. Culley and Mr. Keran will be based 100% on our achievement of corporate objectives and the target award amount for each of them is \$150,000. The target amount of each award may be increased or decreased by multiplying the target amount by a corporate performance multiplier, as will be determined by the compensation committee of our board of directors in the first quarter of 2010. Award multipliers will range from zero to 1.5. Payment of awards under the incentive plan will be made after December 31, 2009 and on or before March 14, 2010.

Under the retention plan, if the employment of Mr. Culley or Mr. Keran, as applicable, terminates at any time as a result of an involuntary termination, and such employee delivers and does not revoke a general release of claims, which will also confirm any post-termination obligations and/or restrictions applicable to such employee, such employee will be entitled to an amount equal to twelve (12) months of such employee's then-current base salary, less applicable withholdings and an amount equal to the estimated cost of continuing such employee's health care coverage and the coverage of such employee's dependents who are covered at the time of the involuntary termination under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, for a period equal to twelve (12) months. These severance benefits will be paid in a lump-sum on the date the general release of claims becomes effective. Our aggregate contractual obligation under the retention plan, including applicable payroll and employer taxes, is approximately \$650,000.

For purposes of the retention plan, an involuntary termination means (i) without the employee's express written consent, an action by our board of directors or external events causing or immediately portending a material reduction or alteration of the employee's duties, position or responsibilities relative to the employee's duties, position or responsibilities in effect immediately prior to such reduction or alteration, or the removal of the employee from such position, duties or responsibilities; provided, however, that an involuntary termination shall not be deemed to occur (a) with respect to Mr. Culley, if Mr. Culley remains the head of and most senior individual within the Company's (or its successor's) business development function and (B) with respect to Mr. Keran, if Mr. Keran remains the head of and most senior individual within the Company's (or its successor's) legal function; (ii) without the

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employee's express written consent, a material reduction by us of the employee's base salary as in effect immediately prior to such reduction; (iii) without the employee's express written consent, the relocation of the employee's principal place of employment with us by more than fifty (50) miles; (iv) any termination of the employee by us without cause (as defined below); or (vi) a material breach of the retention plan, including, but not limited to our failure to obtain the assumption of the retention plan by any successors as contemplated in the retention plan. For purposes of the retention plan, Cause means (i) any act of personal dishonesty taken by the employee in connection with his or her responsibilities as an employee which is intended to result in substantial personal enrichment of the employee; (ii) the employee's conviction of a felony that our board of directors reasonably believes has had or will have a material detrimental effect on our reputation or business; (iii) a willful act by the employee that constitutes misconduct and is materially injurious to us, or (iv) continued willful violations by the employee of the employee's obligations to us after there has been delivered to the employee a written demand for performance from us that describes the basis for our belief that the employee has not substantially performed his or her duties.

In addition, as of December 31, 2008, we had accrued vacation benefits liability for Mr. Culley in the amount of \$48,461 and for Mr. Keran in the amount of \$30,166. If their employment with us had ended on December 31, 2008, they would have been entitled to payment of those amounts.

It is our policy that, at the beginning of employment, all employees sign our standard confidential information, non-solicitation and invention assignment agreement for employees. Under the current version of this agreement, employees agree that, during the period of the employee's service to us and for one year thereafter, the employee will not (a) solicit any employee or consultant of ours to leave the employ of or terminate any relationship with us or (b) solicit the business of any client or customer of ours using our confidential information. Each of Mr. Culley and Mr. Keran executed such an agreement in connection with the commencement of his employment with us.

***2008 and 2009 Stock Option Grants***

On March 31, 2008, the compensation committee granted stock option awards to certain of our non-CEO executives, including a stock option to purchase 200,000 shares to each of Messrs. Culley and Keran and Dr. Robbins. The compensation committee did not grant any stock option awards to Mr. Levine (the reasons for which are described under Compensation Programs and Process Elements of Compensation in the proxy statement we filed with the SEC on April 16, 2008) or Mr. Bagnall, who was then one of our non-employee directors (see - Employment and Separation Arrangements with Mr. Bagnall below regarding an option granted to him in April 2008 in connection with commencement of his employment). The March 2008 stock options were granted under our 2005 Equity Incentive Plan, have a term of 10 years, and vest and become exercisable as to one-fifth of the shares subject to the option on each of January 1, 2009, January 1, 2010, January 1, 2011, January 1, 2012 and January 1, 2013. The vesting schedule was recommended by Mr. Levine, then our chief executive officer, and, after substantial discussion, approved by the compensation committee. The per share exercise price of these options is \$0.54, which was the closing price of our common stock on March 31, 2008. None of these options currently are in-the-money.

On July 21, 2009, the compensation committee granted to each of Mr. Culley and Mr. Keran a stock option to purchase up to 1,700,000 shares of our common stock. The per share exercise price of these options is \$0.13, which was the closing price of our common stock on July 21, 2009. The July 2009 stock options were granted under our 2008 Omnibus Incentive Plan, have a term of 10 years, and vest and become exercisable, subject to the respective employee's continuous service, as to one-fourth of the shares subject to the option on each of January 1, 2010, January 1, 2011, January 1, 2012 and January 1, 2013. However, in the event Mr. Culley or Mr. Keran, as applicable, ceases to provide services to us as an employee by reason of an involuntary termination, exercisability of the then-vested stock options shall be extended such that the stock options shall be exercisable for a period of 12 months from the date of such involuntary termination. In addition, the vesting and exercisability of each option will accelerate or be extended under certain circumstances, including, (i) in the event of a change in control (as defined in our 2008 Omnibus Incentive Plan), acceleration with respect to fifty percent of the then unvested shares on the day prior to the date of the change in control and, subject to the respective employee's continuous service, with respect to the remaining fifty percent of the then unvested shares on the one year anniversary of the date of the change in control, (ii) subject to the preceding clause (i), in the event of a change of control, to the extent the successor company (or a subsidiary or parent thereof) does not assume or substitute for the option, acceleration in full on the day prior to the

date of the change in control if the employee is then providing services or was the subject an involuntary termination in connection with, related to or in contemplation of the change in control and exercisability for a period of 36 months from the date of such involuntary termination, and (iii) subject to the preceding clause (i), in the event of a change of control, to the extent the successor company (or a subsidiary or parent thereof) assumes or substitutes for the option, and in the event of an involuntary termination of the employee within 12 months following the date of the change in control, acceleration in full and exercisability for a period of 36 months from the date of such involuntary termination. For purposes of the July 2009 stock options, the definition of "involuntary termination" is the same as under the retention plan described above.

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We structured the number of shares underlying and the vesting schedule of the March 2008 stock options and the July 2009 stock options primarily to retain and incentivize our executives, and not primarily as a form of compensation or to recognize individual or corporate performance in 2007 or 2008. In particular, we did not view these awards as typical annual option grants. The compensation committee's goal in determining the size of these stock option awards was to emphasize unity and cohesion within our executive ranks. The compensation committee intended for, with respect to the March 2008 stock options, our non-CEO executives and, with respect to the July 2009 stock options, our two remaining employees, to share equally in our future success and, accordingly, granted similarly situated executives comparably sized stock option awards.

The compensation committee granted these awards to retain and properly incentive the individuals capable of maximizing the potential of our assets. Without a substantial opportunity to participate in our future success, we were concerned that we would be unable to retain key executives. In addition, the annual, cliff-based vesting schedule of the March 2008 stock options and the July 2009 stock options was structured to provide substantial retentive value.

As a condition to the grant of the July 2009 stock options, both Mr. Culley and Mr. Keran agreed to terminate the awards of restricted stock units, representing the right to receive 1,200,000 and 850,000 shares, respectively, of our common stock, that we granted to Mr. Culley and Mr. Keran in January 2009.

***2007 Bonus to Mr. Levine***

In March 2008, we evaluated our executives' 2007 compensation and performance and, consistent with past practice, no cash bonuses for any of our non-CEO executives were approved by the compensation committee. However, the compensation committee awarded Mr. Levine a discretionary cash bonus of \$200,000.

Mr. Levine's 2007 bonus was not based on achievement of the corporate objectives previously established by the compensation committee. Following our announcement in October 2007 regarding the results of our phase 2b clinical trial of ANX-510, several of the corporate objectives previously established by the compensation committee became irrelevant or undesirable and the compensation committee did not subsequently revise those objectives. Mr. Levine's 2007 bonus was awarded in part in recognition of his 2007 performance, but also to compensate him in lieu of our not granting him any stock option awards (the reasons for which are more fully described under "Compensation Programs and Process" Elements of Compensation in the proxy statement we filed with the SEC on April 16, 2008). Despite our October 2007 announcement regarding the results of our phase 2b clinical trial of ANX-510 and the resulting decline in our stock price, 2007 was marked with several positive achievements. Furthermore, the compensation committee determined that Mr. Levine's performance in 2007 was exceptional in light of prevailing conditions and that he displayed the leadership and perseverance in the face of adversity that we seek in our executives and wish to reward.

In approving Mr. Levine's 2007 bonus, the compensation committee was sensitive to the perception that it was rewarding Mr. Levine when our stockholders and stock price have suffered. To rebuild value, however, the compensation committee believed it was critical that we retain and properly incentivize Mr. Levine because of the unique qualities that he possesses, as well as to provide continuity to our operations. Based on our successes in 2007 and Mr. Levine's leadership following our October 2007 clinical trial results announcement, as well as our not granting Mr. Levine any equity awards since 2003, the compensation committee determined that a cash bonus reflecting 80% of Mr. Levine's target award was appropriate.

***Separation Arrangements with Mr. Levine***

In October 2008, Mr. Levine's employment relationship with us ended and, in December 2008, Mr. Levine resigned from our board of directors. Mr. Levine formerly served as our chief executive officer and president. In December 2008, we entered into a confidential separation agreement and general release of all claims regarding terms of separation with Mr. Levine, or the Levine Separation Agreement.

As set forth in the Levine Separation Agreement, in exchange for a mutual release of claims and Mr. Levine's agreement and representations (as more fully described below), we agreed to provide a severance payment of \$225,000 to Mr. Levine. In addition, we agreed to provide a health benefit allowance of \$19,870, which Mr. Levine may use, at his discretion, to pay the premiums required to continue his group health care coverage under COBRA or any other health care related expenses. The severance payment and the health benefit allowance were paid in one lump sum, less applicable payroll deductions and required withholdings, in January 2009. In addition, pursuant to the Levine Separation Agreement, we agreed to issue 1,000,000 fully-vested shares of our common stock to Mr. Levine,

subject to the satisfaction of certain conditions by January 30, 2009, or, if those conditions were not so satisfied, pay Mr. Levine an additional \$100,000 in one lump sum, less applicable payroll deductions and required withholdings. In February 2009, because the conditions to our obligation to issue the shares had not been timely satisfied, we paid Mr. Levine an additional \$100,000

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in one lump sum, less applicable payroll deductions and required withholdings. In November 2008, prior to entering into the Levine Separation Agreement, we paid Mr. Levine a total of \$40,000 in four weekly installments ending in December 2008 in exchange for Mr. Levine's agreement not to sign a confidential separation agreement and general release of all claims that was presented to Mr. Levine on October 19, 2008 to allow time for discussions related to the terms of Mr. Levine's separation from us and release of claims to continue.

Under the Levine Separation Agreement, Mr. Levine represented that he had returned to us all property, data and information belonging to us and agreed not to use or disclose to others any confidential or proprietary information of ours and agreed to comply with his continuing obligations under various agreements and other documents as previously executed by him. In addition, we and Mr. Levine each agreed that neither would make any voluntary statements, written or oral, or cause or encourage others to make any such statements, that defame, disparage or in any way criticize the personal and/or business reputation, practices or conduct of, respectively, Mr. Levine, on the one hand, or us or our employees, officers and directors, among others, on the other hand. Each of us and Mr. Levine also represented that neither had filed any lawsuits, complaints or other accusatory pleadings against the other. Mr. Levine also certified that all transactions in our securities prior to his separation date and reportable under Section 16 of the Securities Exchange Act of 1934 had been reported on Form 4 and agreed to execute and deliver promptly after December 31, 2008 a document certifying that he is not required to file a Form 5 for the fiscal year ended December 31, 2008.

***Employment and Separation Arrangements with Mr. Bagnall***

In connection with Mr. Bagnall's employment as our chief financial officer, executive vice president and treasurer, effective as of April 3, 2008, we entered into an offer letter agreement with Mr. Bagnall. Pursuant to the terms of the offer letter, Mr. Bagnall's base salary was \$350,000 per year and he was entitled to participate in our health and welfare benefits, 401(k) plan and other benefits on the same terms as our other executive officers. In addition, Mr. Bagnall was eligible to participate in our 2008 Incentive Plan, which is discussed under "Executive Officer and Director Compensation - Compensation Discussion and Analysis" in the proxy statement we filed with the SEC on April 16, 2008, on the same basis as our other executive officers. In the event of Mr. Bagnall's involuntary termination, we agreed to (a) continue to pay Mr. Bagnall's base salary in effect immediately prior to the effective date of such involuntary termination for the number of months equal to the number of full 30-day periods he was a full-time employee of our, provided that in no event would such number of months exceed 12 (this period is referred to as the Severance Period), (b) pay Mr. Bagnall all costs that we would otherwise have incurred to maintain his health and similar benefits during the Severance Period, and (c) pay Mr. Bagnall the amount of the matching 401(k) contribution that would have been contributed by us based on the amount contributed by Mr. Bagnall in the pay-period immediately prior to the effective date of the involuntary termination. Our obligation to make such payments was conditioned upon Mr. Bagnall's execution and delivery of a general release of claims and submission of his resignation as a member of our board of directors. If Mr. Bagnall failed to execute and deliver the release of claims or subsequently revoked the release, he would not have been entitled to any of the severance payment. If Mr. Bagnall failed to submit his resignation from our board of directors, he would not have received any severance payment until after our next annual meeting of stockholders for which he was not nominated for election to our board of directors in the proxy materials related to such meeting. On December 11, 2008, the compensation committee of the Board approved amendments to the offer letter intended to make severance benefits payable to Mr. Bagnall exempt from potential deferred compensation tax penalties.

In addition, on March 31, 2008, the compensation committee approved a stock option to Mr. Bagnall under our 2005 Equity Incentive Plan to purchase up to 500,000 shares of our common stock, contingent upon the commencement of Mr. Bagnall's employment with us. Accordingly, this option was granted on April 3, 2008 with an exercise price of \$0.52 per share, which was the closing price of our common stock on April 3, 2008. The terms of the option provide that it would vest and become exercisable with respect to 100,000 of the underlying shares on each of January 1, 2009, January 1, 2010, January 1, 2011, January 1, 2012 and January 1, 2013, subject to Mr. Bagnall's continuous service (as defined in our 2005 Equity Incentive Plan). However, in the event of Mr. Bagnall's involuntary termination, the option's vesting schedule would accelerate such that (a) an additional 50,000 shares will vest and become exercisable if the effective date of such involuntary termination occurs between January 1 and June 30 of a

given calendar year and (b) an additional 100,000 shares will vest and become exercisable if the effective date of such involuntary termination occurs between July 1 and December 31 of a given calendar year, subject to Mr. Bagnall's execution and delivery to us of a release of claims and his not revoking such release. In the event of Mr. Bagnall's death, disability or other termination, the option would be exercisable for 90 days following such event, except that in the event of an involuntary termination, the option would be exercisable for 180 days following such termination, subject to Mr. Bagnall's execution and delivery to us of a release of claims and his not revoking such release. In addition, in the event of a change of control (as defined in our 2005 Equity Incentive Plan) where Mr. Bagnall was employed by us or one of our affiliates as of the closing date of the change of control and the option was not assumed or replaced, the option would accelerate in full. In the event of Mr. Bagnall's involuntary termination before and in connection with a change of control, the option would accelerate in full upon the change of control. Finally, in the event of a change of control where the



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option is assumed or replaced, (i) 50% of any unvested portion of the option would vest immediately prior to the closing date of the change of control, (ii) the remaining unvested portion of the option would vest ratably by month over the 12-month period beginning on the closing date of the change of control, subject to Mr. Bagnall's continuous service, and (iii) 100% of any remaining unvested portion of the option would vest upon an involuntary termination of Mr. Bagnall that occurs within 12 months of the change of control. Unless terminated earlier pursuant to its terms, the option would expire on April 2, 2018.

For purposes of the offer letter and the stock option granted to Mr. Bagnall, an involuntary termination is one that occurs by reason of involuntary dismissal by us for any reason other than misconduct (as defined below) or Mr. Bagnall's voluntary resignation for good reason, which means the occurrence of one of the following events or circumstances without his written consent: (i) a change in position that materially reduces the level of his responsibility, (ii) a material reduction in his base salary, or (iii) relocation by more than 50 miles from his then-primary work location; provided that his resignation shall not be for good reason unless (x) he provides us with written notice within 30 days after he first has knowledge of the occurrence or existence of such event or circumstance, (y) we fail to correct the circumstance or event so identified within 30 days after receipt of such written notice, and (z) he resigns within 90 days after the date of delivery of the notice. Misconduct means the commission of any act of fraud, embezzlement or dishonesty by Mr. Bagnall, any unauthorized use or disclosure by him of confidential information or trade secrets of ours (or any parent or subsidiary), or any other intentional misconduct by him adversely affecting our business affairs (or those of any parent or subsidiary) in a material manner.

In December 2008, Mr. Bagnall's employment relationship with us ended. In January 2009, we entered into a confidential separation agreement and general release of all claims regarding terms of separation with Mr. Bagnall, or the Bagnall Separation Agreement.

As set forth in the Bagnall Separation Agreement, in exchange for a release of claims and Mr. Bagnall's agreement and representations (as more fully described below), we agreed to provide a severance payment of \$165,500 to Mr. Bagnall and each of us and Mr. Bagnall agreed to enter into a consulting relationship. In addition, we agreed to provide a health benefit allowance of \$18,352, which Mr. Bagnall may use, at his discretion, to pay the premiums required to continue his group health care coverage under COBRA or any other health care related expenses. The severance payment and the health benefit allowance were paid in one lump sum, less applicable payroll deductions and required withholdings, in January 2009. The severance provisions set forth in the Bagnall Separation Agreement supersede and replace the severance provisions set forth in Mr. Bagnall's offer letter, which was effective as of April 3, 2008 and amended as of December 11, 2008. Pursuant to the terms of the stock option granted to Mr. Bagnall in April 2008 in connection with the commencement of his employment (as more fully described above), 100,000 shares underlying this option vested and became exercisable immediately prior to Mr. Bagnall's involuntary termination in December 2008. As a result of Mr. Bagnall's remaining on our board of directors, Mr. Bagnall remained in continuous service and this option will continue to vest until such time as Mr. Bagnall is no longer in continuous service. Stock options held by Mr. Bagnall granted to him as a member of our board of directors were unaffected by Mr. Bagnall's involuntary termination.

Under the Bagnall Separation Agreement, Mr. Bagnall represented that he returned to us all property, data and information belonging to us other than is reasonably required by Mr. Bagnall to perform services as a member of our board of directors or is reasonably related to such services or is needed by Mr. Bagnall to provide services as a consultant to us. Mr. Bagnall agreed not to use or disclose to others any confidential or proprietary information of ours, except, as applicable, in connection with Mr. Bagnall's position as a member of our board of directors or as a consultant to us, in which case such use and disclosure will be governed by such documents, agreements and duties as apply to such positions. Mr. Bagnall further agreed to comply with his continuing obligations under various agreements and other documents as previously executed by him. In addition, Mr. Bagnall agreed that he will not make any voluntary statements, written or oral, or cause or encourage others to make any such statements, that defame, disparage or in any way criticize the personal and/or business reputation, practices or conduct of us or our employees, officers and directors, among others. Mr. Bagnall also represented that he had not filed any lawsuits, complaints or other accusatory pleadings against us and certified that all transactions in our securities prior to his separation date and reportable under Section 16 of the Securities Exchange Act of 1934 had been reported on Form 4 and agreed to

execute and deliver promptly after December 31, 2008 a document certifying that he is not required to file a Form 5 for the fiscal year ended December 31, 2008. Finally, Mr. Bagnall agreed, at the end of the consulting period, to extend and reaffirm the promises made by Mr. Bagnall in the Bagnall Separation Agreement, including the release of claims.

In December 2008, the Company and Mr. Bagnall entered into a consulting agreement. Under the consulting agreement, Mr. Bagnall agreed to provide consulting services on an as-needed basis to assist us in identifying and evaluating strategic options and to respond to inquiries regarding finance and other matters, and we agreed to pay Mr. Bagnall \$100 per hour. In February 2009, we and Mr. Bagnall amended the consulting agreement to include services related to Mr. Bagnall acting as our interim principal financial and accounting officer, and agreed to pay Mr. Bagnall \$250 per hour for services provided after such amendment. Either party may

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terminate the consulting agreement upon written notice. In 2008, we did not pay or accrue any amount with respect to Mr. Bagnall's consulting services. We do not expect to pay Mr. Bagnall more than \$120,000 under the consulting agreement.

***Employment and Separation Arrangements with Mr. Hanson***

In connection with the commencement of Mr. Hanson's employment in December 2006 as our chief financial officer and a senior vice president, we entered into an offer letter agreement with Mr. Hanson which provided that in the event of Mr. Hanson's involuntary termination, subject to Mr. Hanson's execution of a mutual release (which included a nondisparagement provision and a covenant not to sue our company), Mr. Hanson would receive an amount equal to his base salary for the six-month period immediately prior to the effective date of such involuntary termination, payable in six substantially equal installments over the six-month period following such effective date, and we would pay in cash all costs we would otherwise have incurred to maintain Mr. Hanson's health, welfare and retirement benefits if Mr. Hanson had continued to render services to us for six months after such effective date. In addition, we granted to Mr. Hanson a stock option to purchase up to 250,000 shares of our common stock, which option would vest and become exercisable monthly over 48 months from the vesting start date except that no shares would vest or become exercisable for the first 12 months and, on the 12-month anniversary of the vesting start date, which was December 20, 2007, 25% of the shares would vest and become exercisable. Pursuant to the terms of Mr. Hanson's December 2006 stock option, in the event of Mr. Hanson's involuntary termination, and subject to Mr. Hanson's execution of a general release of claims (which included a nondisparagement provision and a covenant not to sue our company), that number of shares underlying the stock option would vest and become exercisable, effective immediately prior to the effective date of such involuntary termination, as would have vested and become exercisable had Mr. Hanson remained in continuous service (i.e., the absence of any interruption or termination of services as an employee, director or consultant of ours, or any subsidiary) for six months following such effective date, and Mr. Hanson would have 180 days following the effective date of such involuntary termination to exercise this stock option. For purposes of this agreement, an involuntary termination meant one that occurred by reason of dismissal for any reason other than misconduct or of voluntary resignation following: (i) a change in position that materially reduced the level of Mr. Hanson's responsibility, (ii) a material reduction in Mr. Hanson's base salary, or (iii) relocation by more than 50 miles; provided that (ii) and (iii) will apply only if Mr. Hanson did not consent to the change or relocation. Misconduct meant the commission of any act of fraud, embezzlement or dishonesty by Mr. Hanson, any unauthorized use or disclosure by Mr. Hanson of confidential information or trade secrets of ours (or any parent or subsidiary), or any other intentional misconduct by Mr. Hanson adversely affecting our business affairs (or those of any parent or subsidiary) in a material manner.

In April 2008, Mr. Hanson's employment relationship with us ended. In April 2008, we entered into a letter agreement regarding terms of separation with Mr. Hanson. The terms of Mr. Hanson employment separation, as provided in the letter agreement, were substantially identical to those set forth in his offer letter, dated December 13, 2006, and in the stock option agreement relating to the stock option granted to him in December 2006 in connection with the commencement of his employment, both of which are described above.

As set forth in the letter agreement regarding terms of separation, in exchange for a mutual release, beginning in April 2008, we paid Mr. Hanson an aggregate of \$125,000, which was equal to six months of Mr. Hanson base salary in effect at the time of termination, less applicable payroll deductions and required withholdings, in substantially equal installments in accordance with our standard payroll practices over 13 pay periods. In addition, we paid Mr. Hanson \$20,997, less applicable payroll deductions and required withholdings, which we and Mr. Hanson agreed satisfied in full our obligation to pay all costs that we would otherwise have incurred to maintain Mr. Hanson's health, welfare and retirement benefits if Mr. Hanson had continued for six continuous months after Mr. Hanson's termination date. We paid the \$20,997 amount in substantially equal installments commencing on and continuing in accordance with the same schedule described above with respect to payment of Mr. Hanson's base salary. Furthermore, we accelerated the vesting and extended the time to exercise vested shares under the stock option granted to Mr. Hanson in December 2006 in connection with the commencement of his employment. Under this option, Mr. Hanson was granted the right to purchase up to 250,000 shares of our common stock at a price of \$2.57 per share, which right was subject to a vesting schedule. As of Mr. Hanson's termination date, this option was vested as to 78,125 shares and

unvested as to 171,875 shares. Pursuant to the letter agreement regarding terms of separation, we accelerated vesting as to 31,250 of the unvested shares, which resulted in this option being vested as to a total of 109,375 shares, and extended the time for Mr. Hanson to exercise the vested shares under this option through September 29, 2008. Mr. Hanson did not exercise the option by September 29, 2008 and, accordingly, it terminated on that date. The closing market price of our common stock on September 29, 2008 was \$0.18 per share, while the exercise price of the option was \$2.57 per share.

Under the letter agreement regarding terms of separation, Mr. Hanson represented that he had returned to us all of our property and data that had been in his possession or control and acknowledged that he will continue to be bound an agreement with us regarding the use and confidentiality of our confidential information and, in particular, that he will hold all of our confidential

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information in confidence and not directly or indirectly use any aspect of such confidential information. Mr. Hanson also agreed not to make any voluntary statements, written or oral, or cause or encourage others to make any such statements that defame or disparage us and, among others, our officers and directors.

In addition, in April 2008, we and Mr. Hanson entered into a consulting agreement and related confidential information and invention assignment agreement. Under the consulting agreement, Mr. Hanson agreed to provide consulting services on an as-needed basis and we agreed to pay Mr. Hanson (a) for the first ten hours in a particular calendar month, \$250 per hour and (b) for any time beyond ten hours in a particular calendar month, \$150 per hour. Either party may terminate the consulting agreement upon written notice, except that Mr. Hanson could not terminate the consulting agreement, other than for our failure to pay Mr. Hanson as set forth in the consulting agreement, prior to December 31, 2008. The Company does not expect to require Mr. Hanson's consulting services during 2009.

***Employment and Separation Arrangements with Dr. Robbins***

Under the terms of an offer letter, dated March 5, 2003, we agreed to pay Dr. Robbins a bonus, payable in stock options, equal to 5% of all government grants received by us. In addition, we agreed to pay Dr. Robbins a bonus, payable in stock options, equal to 5% of capital received by us that was a direct result of Dr. Robbins' introduction. We never issued any stock options to Dr. Robbins as a result of these provisions. In October 2008, Dr. Robbins' employment relationship with us ended. Dr. Robbins formerly served as our chief scientific officer and a senior vice president. In December 2008, we entered into a confidential separation agreement and general release of all claims regarding terms of separation with Dr. Robbins, or the Robbins Separation Agreement.

As set forth in the Robbins Separation Agreement, in exchange for a release of claims and Dr. Robbins' agreement to provide certain transition assistance and Dr. Robbins' other agreements and representations (as more fully described below), we agreed to provide a severance payment of \$123,615 to Dr. Robbins. In addition, we agreed to provide a health benefit allowance of \$8,309, which Dr. Robbins may use, at her discretion, to pay the premiums required to continue her group health care coverage under COBRA or any other health care related expenses. We agreed to pay the severance payment and the health benefit allowance in eleven substantially equal installments over a period of five and one-half months, less applicable payroll deductions and required withholdings, beginning in December 2008, conditioned upon Dr. Robbins' making herself available as needed during that period to answer business-related questions by telephone or in person as deemed reasonably necessary by us. At the time of her separation, Dr. Robbins held vested options to purchase up to 495,312 shares. Pursuant to their terms, these options expired, unexercised, on December 30, 2008 and January 12, 2009. The closing market price of our common stock on December 30, 2008 was \$0.07 per share, while the exercise price of the option that expired on December 30, 2008 was \$0.50 per share. The closing market price of our common stock on January 12, 2009 was \$0.12 per share, while the exercise prices of the options that expired on January 12, 2009 were \$2.30 per share, \$2.75 per share and \$4.75 per share.

Under the Robbins Separation Agreement, Dr. Robbins represented that she had returned to us all property, data and information belonging to us and agreed not to use or disclose to others any confidential or proprietary information of ours and agreed to comply with her continuing obligations under various agreements and other documents as previously executed by her. In addition, she agreed to make herself available, as needed, without any additional compensation, to answer business-related questions by telephone or in person as deemed reasonably necessary by us and that she will not make any voluntary statements, written or oral, or cause or encourage others to make any such statements, that defame, disparage or in any way criticize the personal and/or business reputation, practices or conduct of us or our employees, officers and directors, among others. Dr. Robbins also represented that she had not filed any lawsuits, complaints or other accusatory pleadings against us and certified that all transactions in our securities prior to her separation date and reportable under Section 16 of the Securities Exchange Act of 1934 had been reported on Form 4 and agreed to execute and deliver promptly after December 31, 2008 a document certifying that she is not required to file a Form 5 for the fiscal year ended December 31, 2008.

***Acceleration of Vesting of Outstanding Stock Options***

Stock options granted under our 2005 Equity Incentive Plan typically are evidenced by our standard stock option agreement. We may elect to incorporate into our standard stock option agreement one or more alternatives regarding the effect of a change in control on the underlying option, including its vesting and exercisability. We have not granted any stock options to any of the Named Executive Officers currently employed by us under our 2008 Omnibus

Incentive Plan, other than the July 2009 stock options described above under Narrative Disclosure to Summary Compensation Table.

We generally provide in stock option agreements (actually entered into with recipients of stock option awards) that the option will accelerate in full in the event of an acquisition constituting a change of control (as such terms are defined in our standard

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form of stock option agreement) if the recipient remains employed by us 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. Otherwise, the option will not accelerate in the event of such an acquisition. All of the stock option agreements governing the outstanding, unvested options held by the Named Executive Officers currently employed by us contain this acceleration provision.

In addition, we have incorporated into certain stock option agreements for options granted in and after August 2006 a provision providing that, if following a change of control in which an option is assumed as described above, in the event of the recipient's involuntary termination within a period of time, not to exceed 24 months, after the closing date of such change of control, the vesting of the assumed option will be accelerated such that the option will vest as of the effective date of such involuntary termination with respect to all shares that would have vested during such period. For purposes of the stock option agreements, an involuntary termination is a termination of employment 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 the employee's responsibility, (ii) a material reduction in the employee's base salary, or (iii) relocation by more than 50 miles; provided that (ii) and (iii) will apply only if the employee has not consented to the change or relocation.

Misconduct means the commission of any act of fraud, embezzlement or dishonesty by the employee, any unauthorized use or disclosure by the employee of confidential information or trade secrets of our company (or any parent or subsidiary), or any other intentional misconduct by the employee adversely affecting our business affairs (or those of any parent or subsidiary) in a material manner. All of the stock option agreements governing the options granted to the Named Executive Officers in January 2007 contain this double trigger acceleration provision. We anticipate continuing to include this or a similar double trigger acceleration provision in most stock option awards made in the future.

As of December 31, 2008, none of the Named Executive Officers had any in-the-money unvested stock options. The value at December 31, 2008 of the acceleration provisions described above is based on the spread between the exercise price of option shares that would accelerate under the acceleration scenarios described above and the market value of these shares as of December 31, 2008. The market value of these shares is based on the closing market price of our common stock on December 31, 2008, which was \$0.08 per share. None of the outstanding, unvested options held by the Named Executive Officers has an exercise price of less than \$0.08 per share. Accordingly, none of the Named Executive Officers would have realized any value as a result of the acceleration provisions described above had any of the acceleration scenarios occurred on December 31, 2008.

**Outstanding Equity Awards at Fiscal Year-End 2008**

The following table sets forth information regarding outstanding equity awards held by the Named Executive Officers at the end of fiscal 2008:

| Option Awards                   |                                 |                                 | Stock Awards                  |                     |  |                        |
|---------------------------------|---------------------------------|---------------------------------|-------------------------------|---------------------|--|------------------------|
|                                 |                                 |                                 |                               |                     | Equity Incentive Plan Awards: Market               |                        |
|                                 |                                 |                                 | Equity Incentive Plan Awards: |                     | Equity or Incentive Payout Market Value Awards: of |                        |
| Number of Securities Underlying | Number of Securities Underlying | Number of Securities Underlying | Number of Shares or           | Number of Shares or | Number of Shares, or                               | Unearned Shares, Units |
|                                 |                                 |                                 |                               |                     |  |                        |

| Name              | Unexercised | Unexercised   | Unexercised | Option   | Option     | Units  | Units  | Units  | or     |
|-------------------|-------------|---------------|-------------|----------|------------|--------|--------|--------|--------|
|                   | Options     | Options       | Unearned    | Exercise | Expiration | Stock  | Stock  | Rights | Other  |
|                   | (#)         | (#)           | Options     | Price    | Date       | That   | That   | That   | Rights |
|                   | Exercisable | Unexercisable | (#)         | (\$)     |            | Have   | Have   | Have   | That   |
|                   |             |               |             |          |            | Not    | Not    | Not    | Have   |
|                   |             |               |             |          |            | Vested | Vested | Vested | Not    |
|                   |             |               |             |          |            | (#)    | (\$)   | (#)    | Vested |
|                   |             |               |             |          |            |        |        |        | (\$)   |
| Brian M. Culley   | 100,000     |               |             | \$ 2.30  | 7/13/2015  |        |        |        |        |
|                   | 58,333(1)   | 21,667(1)     |             | \$ 4.75  | 1/30/2016  |        |        |        |        |
|                   | 71,875(2)   | 78,125(2)     |             | \$ 2.75  | 1/11/2017  |        |        |        |        |
|                   |             | 200,000(3)    |             | \$ 0.54  | 3/30/2018  |        |        |        |        |
| Patrick L. Keran  | 58,333(4)   | 41,667(4)     |             | \$ 2.99  | 8/17/2016  |        |        |        |        |
|                   | 23,958(2)   | 26,042(2)     |             | \$ 2.75  | 1/11/2017  |        |        |        |        |
|                   |             | 200,000(3)    |             | \$ 0.54  | 3/30/2018  |        |        |        |        |
| Evan M. Levine    |             |               |             |          |            |        |        |        |        |
| Mark N.K. Bagnall | 50,000      |               |             | \$ 2.42  | 7/13/2015  |        |        |        |        |
|                   | 50,000      |               |             | \$ 4.62  | 6/01/2016  |        |        |        |        |
|                   | 50,000      |               |             | \$ 2.57  | 5/22/2017  |        |        |        |        |
|                   | 100,000(5)  | 400,000(5)    |             | \$ 0.52  | 4/02/2018  |        |        |        |        |
| Gregory P. Hanson |             |               |             |          |            |        |        |        |        |
| Joan M. Robbins   | 93,750(6)   | 6,250(6)      |             | \$ 2.30  | 1/12/2009  |        |        |        |        |
|                   | 68,750(6)   | 31,250(6)     |             | \$ 4.75  | 1/12/2009  |        |        |        |        |
|                   | 32,812(6)   | 42,188(6)     |             | \$ 2.75  | 1/12/2009  |        |        |        |        |
|                   |             | 200,000(7)    |             | \$ 0.54  | 1/12/2009  |        |        |        |        |



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- (1) Subject to accelerated vesting in the event of a change in control, as described above under Narrative Disclosure to Summary Compensation Table Acceleration of Vesting of Outstanding Stock Options, this option vested and became exercisable with respect to 1/4 of the total underlying shares on January 1, 2007 and vests and becomes exercisable with respect to 1/48 of the total underlying shares at the end of each successive calendar month thereafter.
  
- (2) Subject to accelerated vesting in the event of a change in control or an involuntary termination within 24 months of a change in

control, as described above under Narrative Disclosure to Summary Compensation Table Acceleration of Vesting of Outstanding Stock Options, this option vested and became exercisable with respect to 1/4 of the total underlying shares subject to the option on January 1, 2008 and vests and becomes exercisable with respect to 1/48 of the total underlying shares at the end of each successive month thereafter.

- (3) Subject to accelerated vesting in the event of a change in control or an involuntary termination within 24 months of a change in control, as described above under Narrative Disclosure to Summary Compensation Table

Acceleration of Vesting of Outstanding Stock Options, this option will vest and became exercisable with respect to 1/5 of the total underlying shares on each of January 1, 2009, January 1, 2010, January 1, 2011, January 1, 2012 and January 1, 2013.

- (4) Subject to accelerated vesting in the event of a change in control or an involuntary termination within 24 months of a change in control, as described above under Narrative Disclosure to Summary Compensation Table Acceleration of Vesting of Outstanding Stock Options, this option vested and became exercisable with respect to 1/4 of the total underlying shares subject to the option on August 7, 2007 and vests and

becomes exercisable with respect to 1/48 of the total underlying shares at the end of each successive month thereafter.

- (5) Subject to accelerated vesting in the event of a change in control or an involuntary termination within 12 months of a change in control, as described above under Narrative Disclosure to Summary Compensation Table Employment and Separation Arrangements with Mr. Bagnall, this option vested and became exercisable with respect to 100,000 shares immediately prior to Mr. Bagnall's involuntary termination in December 2008 and will vest and become exercisable with respect to 1/5 of the total

underlying shares on each of January 1, 2009, January 1, 2010, January 1, 2011 and January 1, 2012.

(6) Dr. Robbins employment with us ended on October 14, 2008 and, as a result, this option stopped vesting as of such date. Pursuant to the terms of the option grant, this option expired and was no longer exercisable as of January 12, 2009.

(7) Dr. Robbins employment with us ended on October 14, 2008 and, as a result, this option stopped vesting as of such date. On October 14, 2008, none of the shares underlying this option were vested or exercisable.

#### **Tax-Qualified Defined Contribution Plan**

We have a defined contribution savings plan pursuant to Section 401(k) of the IRC. The plan is for the benefit of all full-time employees and permits voluntary contributions by qualifying employees of up to 100% of eligible compensation, subject to Internal Revenue Service-imposed maximum limits. Until January 1, 2008, we were required to make matching contributions in the amount of 100% of employee contributions up to 3% of eligible compensation and 50% of employee contributions between 3% and 5% of eligible compensation. Effective January 1, 2008, the plan was amended to require us to make matching contributions equal to 100% of employee contributions up to 6% of eligible compensation, limited by the IRS-imposed maximum. We incurred total expenses of approximately \$218,150

and \$118,000 in employer matching contributions in 2008 and 2007, respectively. In May 2009, a further amendment to the plan to eliminate matching contributions became effective.

**Compensation of Directors**

Directors who are also our employees do not receive any additional compensation for their services as directors. As of the date of this prospectus, none of our directors is also an employee. Our non-employee directors are compensated as described below.

***Retainer and Meeting Fees***

During 2008, we paid our non-employee directors quarterly cash retainers and board of director and committee meeting fees. The amounts of the quarterly retainers vary depending on the non-employee director's role on our board of directors and its committees, as set forth in the table below:

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| <b>Quarterly Retainers</b>          | <b>Chairperson</b> | <b>Member</b> |
|-------------------------------------|--------------------|---------------|
| Board of Directors                  | \$ 6,250           | \$2,500       |
| Audit Committee                     | \$ 5,000           | \$2,500       |
| Compensation Committee              | \$ 2,500           | \$1,250       |
| Nominating and Governance Committee | \$ 2,500           | \$1,250       |
| Research and Development Committee  | \$ 2,500           | \$1,250       |

In addition to the quarterly retainers, we pay the following per meeting fees with respect to each meeting of our board of directors or any committee of our board of directors with a duration of more than 15 minutes, other than (i) the first four meetings of our board of directors held during each calendar year, (ii) the first four meetings of the audit committee held during each calendar year, (iii) the first two meetings of the compensation committee held during each calendar year and (iv) the first meeting of the nominating and governance committee and the research and development committee held during each calendar year:

\$1,000 to each director for each such meeting attended in person; and

\$500 to each director for each such meeting attended via telephone conference call.

In addition to the quarterly retainer and meeting fees, we reimburse our directors for travel and other reasonable out-of-pocket expenses related to attendance at our board of directors and committee meetings.

***Equity Compensation***

Pursuant to the terms of our 2005 Equity Incentive Plan, each of our non-employee directors was automatically granted a nonstatutory option to purchase 50,000 shares of our common stock at the first meeting of our board of directors following each annual meeting of stockholders, provided that such non-employee director had served on our board of directors for at least the preceding six months. The exercise price per share of each automatically granted option was equal to 105% of the per-share fair market value of our common stock on the grant date. Each such option became exercisable as to 1/12th of the shares underlying the option at the end of each calendar month after its date of grant, provided that the director remains in continuous service. The options expire no later than ten years after the date of grant. In May 2008, our stockholders approved our 2008 Omnibus Incentive Plan. Following adoption of our 2008 Omnibus Incentive Plan, no additional awards (including the automatic options to our non-employee directors described above) have been or will be made under our 2005 Equity Incentive Plan; however, the 2005 Equity Incentive Plan will continue to govern any outstanding awards (including the automatic options to our non-employee directors described above) previously granted under the 2005 Equity Incentive Plan.

Awards under our 2008 Omnibus Incentive Plan are at the discretion of our board of directors or the compensation committee of our board of directors. Unlike the 2005 Equity Incentive Plan, the 2008 Omnibus Incentive Plan does not provide for automatic awards to our directors. However, we currently intend to grant annual nonstatutory options to our non-employee directors on terms substantially similar to the terms of the automatic annual options granted to the non-employee directors under the 2005 Equity Incentive Plan, except that the exercise price per share of these options would be equal to 100% of the per-share fair market value of our common stock on the date of grant.

In February 2008, our board of directors approved an option to purchase up to of 50,000 shares of our common stock to each of Drs. Rowinsky and Denner. Our board of directors granted an option to Dr. Rowinsky in connection with his appointment to our board of directors in February 2008 and granted an option to Dr. Denner in acknowledgment that it had not granted Dr. Denner an option in connection with his appointment to our board of directors in October 2006. Each option will vest and become exercisable in 12 equal monthly installments beginning on, for Dr. Rowinsky, February 25, 2008, and, for Dr. Denner, February 28, 2008, and will expire on March 23, 2018. The grants of these options were contingent upon our receipt of a waiver under the Rights Agreement of restrictions relating to equity awards to our directors and employees. We received the waiver on March 24, 2008 and, accordingly, the options were granted with an exercise price of \$0.48 per share, which was the closing price of our common stock on March 24, 2008. If Dr. Rowinsky's or Dr. Denner's service to us terminates for any reason, the options will be exercisable, to the extent then vested, during the three-year period after the date of such termination, but in no event after March 23, 2018.

In May 2008, our board of directors approved an option to purchase up to 50,000 shares of our common stock to each non-employee member of our board of directors. Each option will vest and become exercisable in 12 equal monthly installments beginning on May 28, 2008 and will expire on June 29, 2018. To comply with the requirements of the NYSE Amex regarding the listing of



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additional securities and applicable securities laws, our board of directors authorized these options to be granted as of a date that would give us a reasonable period of time to apply for and receive approval to list the additional shares with the NYSE Amex and to prepare and file a registration statement on Form S-8 covering awards under our 2008 Omnibus Incentive Plan. Accordingly, our board of directors approved a grant date of June 30, 2008 for these options and the options were granted with an exercise price of \$0.37 per share, which was the closing price of our common stock on June 30, 2008. If any of our non-employee director's service to us terminates for any reason, the options will be exercisable, to the extent then vested, during the three-year period after the date of such termination, but in no event after June 29, 2018.

**Director Compensation in 2008**

The following table shows compensation information for the individuals who served as our non-employee directors during the year ended December 31, 2008:

| Name(1)                | Nonqualified      |                 |                     |  |  |                              | Total      |
|------------------------|-------------------|-----------------|---------------------|--|--|------------------------------|------------|
|                        | Fees Earned<br>or |                 | Option<br>Awards(2) | Non-Equity Deferred<br>Incentive<br>Plan Compensation Earnings |  | All<br>Other<br>Compensation |            |
|                        | Paid in<br>Cash   | Stock<br>Awards |                     |  |  |                              |            |
| Alexander J.<br>Denner | \$ 44,772(3)      |                 | \$65,890(4)         |  |  |                              | \$ 110,662 |
| Michael M.<br>Goldberg | \$ 42,056         |                 | \$47,002(5)         |  |  |                              | \$ 89,058  |
| Jack Lief              | \$ 59,944         |                 | \$47,002(6)         |  |  |                              | \$106,947  |
| Mark J. Pykett         | \$ 41,556         |                 | \$47,002(7)         |  |  |                              | \$ 88,558  |
| Eric K. Rowinsky       | \$ 29,723         |                 | \$28,291(8)         |  |  |                              | \$ 58,014  |

(1) Mark N.K. Bagnall served as a non-employee director for part of 2008, but from April 3, 2008 to December 26, 2008, he served as our executive vice president, chief financial officer and treasurer. Accordingly, all of Mr. Bagnall's 2008 compensation is set forth above in the Summary Compensation Table and under

Narrative  
Disclosure to  
the Summary  
Compensation  
Table.

- (2) Values for option awards have been computed in accordance with FAS 123R, which requires that we recognize as compensation expense the value (excluding the effect of assumed forfeiture rates) of the options granted to the directors over the requisite service period, which is typically the vesting period. For the assumptions made in calculating the FAS 123R value of the option awards, see Note 8 of the Notes to Consolidated Financial Statements contained in our Annual Report on Form 10-K filed with the SEC on March 27, 2009. The amounts in this column include the ratable

compensation  
expense  
recognized in  
2008 for options  
granted in 2007.

- (3) Since  
October 2006,  
when  
Dr. Denner  
joined our board  
of directors,  
through  
February 2008,  
based on its past  
practice  
regarding cash  
compensation  
with respect to  
Mr. Meister, the  
Purchaser  
Designee under  
the Rights  
Agreement prior  
to Dr. Denner,  
we did not pay  
Dr. Denner any  
fees associated  
with his  
participation on  
our board of  
directors or its  
committees. For  
information  
regarding the  
Rights  
Agreement, see  
Director  
Nominations  
Board  
Nominees for  
the 2009 Annual  
Meeting, above.  
In March 2008,  
after discussions  
with  
Dr. Denner, we  
paid Dr. Denner  
\$18,500 and  
\$2,772, which  
represented fees

earned by  
Dr. Denner in  
2007 and 2006,  
respectively, for  
participation on  
our board of  
directors and its  
compensation  
committee.

(4) The aggregate  
number of  
shares  
underlying  
Dr. Denner's  
outstanding  
options at  
December 31,  
2008 was  
150,000 shares.

(5) The aggregate  
number of  
shares  
underlying  
Dr. Goldberg's  
outstanding  
options at  
December 31,  
2008 was  
250,000 shares.

(6) The aggregate  
number of  
shares  
underlying  
Mr. Lief's  
outstanding  
options at  
December 31,  
2008 was  
150,000 shares.

(7) The aggregate  
number of  
shares  
underlying  
Dr. Pykett's  
outstanding  
options at  
December 31,

2008 was  
250,000 shares.

- (8) The aggregate  
number of  
shares  
underlying  
Dr. Rowinsky's  
outstanding  
options at  
December 31,  
2008 was  
100,000 shares.

**Table of Contents****SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

The following table sets forth information regarding beneficial ownership of our common stock as of July 22, 2009, or the Evaluation Date, or an earlier date for information based on filings with the SEC, by (a) each person known to us to beneficially own more than 5% of the outstanding shares of our common stock, (b) each director and nominee for director, (c) each of the Named Executive Officers and (d) all of our directors and executive officers as a group. The information in this table is based solely on statements in filings with the SEC or other reliable information. As of the Evaluation Date, there were 117,792,960 shares of the Company's common stock outstanding.

| <b>Name and Address of Beneficial Owner(1)</b>   | <b>Amount and Nature of Beneficial Ownership(2)</b> | <b>Percent of Class</b> |
|--|---|-------------------------|
| <b>Principal Stockholders</b>  |   |                         |
| Funds affiliated with Carl C. Icahn(3)<br>c/o Icahn Associates Corp.<br>767 Fifth Avenue<br>New York, NY 10153 | 8,648,648   | 7.1%                    |
| <b>Directors and Named Executive Officers</b>  |   |                         |
| Mark N.K. Bagnall(4)   | 350,000   | *                       |
| Alexander J. Denner(5)   | 8,798,648   | 7.2%                    |
| Michael M. Goldberg(6)   | 226,000   | *                       |
| Jack Lief(7)   | 150,000   | *                       |
| Mark J. Pykett(8)  | 208,000   | *                       |
| Eric K. Rowinsky(9)  | 100,000   | *                       |
| Brian M. Culley(10)  | 313,333   | *                       |
| Patrick L. Keran(11)   | 150,416   | *                       |
| Evan M. Levine(12)   | 4,395,000   | 3.7%                    |
| Greg Hanson  | 0   | *                       |
| Joan M. Robbins(13)  | 156,500   | *                       |
| All directors and executive officers as a group (8 persons)(14)  | 10,296,397  | 8.4%                    |

\* Less than 1%.

(1) Unless otherwise indicated, the address of each of the listed persons is c/o ADVENTRX Pharmaceuticals, Inc., 6725 Mesa Ridge Road, Suite 100, San Diego, CA 92121.

(2) Beneficial ownership of

shares is determined in accordance with the rules of the SEC and generally includes any shares over which a person exercises sole or shared voting or investment power, or of which a person has the right to acquire ownership within 60 days after the Evaluation Date. Except as otherwise noted, each person or entity has sole voting and investment power with respect to the shares shown. Unless otherwise noted, none of the shares shown as beneficially owned on this table are subject to pledge.

- (3) Consists of
  - (a) 864,865 shares of common stock held by High River Limited Partnership ( High River );
  - (b) 1,660,540 shares of common stock held by Icahn Partners LP ( Icahn Partners );
  - (c) 1,798,919 shares of

common stock held by Icahn Partners Master Fund LP ( Icahn Master ); (d) 864,865 shares of common stock issuable upon exercise of warrants held by High River; (e) 1,660,540 shares of common stock issuable upon exercise of warrants held by Icahn Partners and (f) 1,798,919 shares of common stock issuable upon exercise of warrants held by Icahn Master. Based on our review of a Schedule 13D filed with the SEC on August 5, 2005 (the Icahn 13D ) by High River, Hopper Investments, LLC ( Hopper ), Barberry Corp. ( Barberry ), Icahn Master, Icahn Offshore LP ( Icahn Offshore ), CCI Offshore Corp. ( CCI Offshore ), Icahn Partners, Icahn Onshore LP ( Icahn Onshore ), CCI Onshore Corp. ( CCI Onshore ) and



Mr. Carl C. Icahn, we believe that (i) Barberry, Hopper and Mr. Icahn may be deemed to beneficially own (as that term is defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended) the shares (including warrant shares) held by High River; (ii) CCI Onshore, Icahn Onshore and Mr. Icahn may be deemed to beneficially own (as that term is defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended) the shares (including warrant shares) directly held by Icahn Partners; and (iii) CCI Offshore, Icahn Offshore and Mr. Icahn may be deemed to beneficially own (as that term is defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended) the

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shares  
(including  
warrant shares)  
directly held by  
Icahn Master  
because, in each  
of the foregoing  
cases, such  
referenced  
persons are in a  
position to  
directly or  
indirectly  
determine the  
investment and  
voting decisions  
of the holder  
referenced.

Barberry,  
Hopper, CCI  
Onshore, Icahn  
Onshore, CCI  
Offshore, Icahn  
Offshore and  
Mr. Icahn each  
disclaim  
beneficial  
ownership of  
such shares they  
may be deemed  
the beneficial  
owner of for all  
other purposes.

(4) Consists of  
350,000 shares  
of common  
stock subject to  
options  
currently  
exercisable or  
exercisable  
within 60 days  
of the  
Evaluation  
Date.

(5) Consists of  
(a) 150,000

shares of  
common stock  
subject to  
options  
currently  
exercisable or  
exercisable  
within 60 days  
of the  
Evaluation

Date,

(b) 864,865

shares of  
common stock  
held by High  
River, (c)

1,660,540

shares of  
common stock  
held by Icahn  
Partners, (d)

1,798,919

shares of  
common stock  
held by Icahn  
Master,

(e) 864,865

shares of  
common stock  
issuable upon  
exercise of  
warrants held by  
High River,

(f) 1,660,540

shares of  
common stock  
issuable upon  
exercise of  
warrants held by  
Icahn Partners  
and

(g) 1,798,919

shares of  
common stock  
issuable upon  
exercise of  
warrants held by  
Icahn Master.

Dr. Denner is a  
Managing  
Director of

entities  
affiliated with  
Mr. Icahn,  
including Icahn  
Partners and  
Icahn Master.  
Dr. Denner  
disclaims  
beneficial  
ownership of  
the shares  
owned by High  
River, Icahn  
Partners and  
Icahn Master  
except to the  
extent of his  
pecuniary  
interest therein.

- (6) Includes  
200,000 shares  
of common  
stock subject to  
options  
currently  
exercisable or  
exercisable  
within 60 days  
of the  
Evaluation  
Date.
- (7) Consists of  
150,000 shares  
of common  
stock subject to  
an option  
currently  
exercisable or  
exercisable  
within 60 days  
of the  
Evaluation  
Date.
- (8) Consists of  
(a) 200,000  
shares of  
common stock  
subject to

options  
currently  
exercisable or  
exercisable  
within 60 days  
of the  
Evaluation Date  
and (b) 8,000  
shares of  
common stock  
held by  
Dr. Pykett and  
his spouse, as  
joint tenants.

(9) Consists of  
100,000 shares  
of common  
stock subject to  
an option  
currently  
exercisable or  
exercisable  
within 60 days  
of the  
Evaluation  
Date.

(10) Consists of  
313,333 shares  
of common  
stock subject to  
an option  
currently  
exercisable or  
exercisable  
within 60 days  
of the  
Evaluation  
Date.

(11) Consists of  
150,416 shares  
of common  
stock subject to  
an option  
currently  
exercisable or  
exercisable  
within 60 days  
of the

Evaluation  
Date.

- (12) Consists of
- (a) 4,320,000 shares of common stock held by Mark Capital LLC,
  - (b) 60,000 shares of common stock held by Mr. Levine in an individual retirement account and
  - (c) 15,000 shares of common stock held by Mr. Levine and his father, as joint tenants with right of survivorship. Mr. Levine is the managing member of Mark Capital LLC.
- (13) Consists of 146,500 shares of common stock held by Dr. Robbins husband and 10,000 shares of common stock held by Dr. Robbins and her spouse, as joint tenants.
- (14) Includes 5,938,073 shares of common stock subject to options and

warrants  
currently  
exercisable or  
exercisable  
within 60 days  
of the  
Evaluation  
Date. Includes  
shares deemed  
beneficially  
owned by Dr.  
Denner but as to  
which he  
disclaims  
beneficial  
ownership.

**Table of Contents****CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

We have incorporated into our written review and approval policies certain procedures designed to ensure that any proposed transaction in which we would be a participant and in which any of our directors, executive officers, holders of more than 5% of our common stock, or any member of the immediate family of any of the foregoing would have a direct or indirect material interest is reviewed by individuals within our company (including our general counsel) familiar with the requirements of Item 404 of Regulation S-K promulgated by the SEC. If any such proposed transaction would require disclosure pursuant to Item 404(a), it will be presented to the audit committee for review and, if appropriate, approval.

Since January 1, 2007, there has not been, nor currently are there proposed, any transactions or series of similar transactions in which we were or are to be a participant and the amount involved exceeds or will exceed the lesser of \$120,000 or 1% of the average of our total assets at December 31, 2007 and 2008, and in which any director, executive officer, holder of more than 5% of our common stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than the transactions described below and the employment arrangements described above under Executive & Director Compensation.

**Separation Arrangements with Former President and Chief Medical Officer**

Dr. James Merritt was employed by us from September 2006 to January 2008 as our president and chief medical officer. Dr. Merritt was a named executive officer of ours for fiscal year 2007. In February 2008, we entered into a letter agreement regarding terms of separation with Dr. Merritt. The terms of Dr. Merritt's employment separation, as provided in the letter agreement, are substantially identical to those set forth in his offer letter, dated September 7, 2006, and in the stock option agreement relating to the stock option to purchase up to 300,000 shares of our common stock granted to him in September 2006 in connection with the commencement of his employment, except that we agreed to extend the exercise period of that option from June 29, 2008 to December 31, 2008.

As set forth in the letter agreement regarding terms of separation, in exchange for a mutual release, beginning in February 2008, we paid Dr. Merritt an aggregate of \$181,250, which was equal to six months of Dr. Merritt's base salary in effect at the time of termination, less applicable state and federal payroll deductions, in substantially equal installments in accordance with our standard payroll practices over 13 pay periods. In addition, we paid Dr. Merritt \$16,038, less applicable state and federal payroll deductions, which we and Dr. Merritt agreed satisfied in full our obligation to pay all costs that we would otherwise have incurred to maintain Dr. Merritt's health, welfare and retirement benefits if Dr. Merritt had continued for six continuous months after Dr. Merritt's termination date. We paid the \$16,038 amount in substantially equal installments commencing on and continuing in accordance with the same schedule described above with respect to payment of Dr. Merritt's base salary. Furthermore, we accelerated the vesting and extended the time to exercise vested shares under the stock option granted to Dr. Merritt in September 2006 in connection with the commencement of his employment. Under this option, Dr. Merritt was granted the right to purchase up to 300,000 shares of our common stock at a price of \$2.86 per share, which right was subject to a vesting schedule. As of Dr. Merritt's termination date, this option was vested as to 100,000 shares and unvested as to 200,000 shares. Pursuant to the letter agreement regarding terms of separation, we accelerated vesting as to 31,249 of the unvested shares, which resulted in this option being vested as to a total of 131,249 shares, and extended the time for Dr. Merritt to exercise the vested shares under this option to Noon (Pacific time) on December 31, 2008. Dr. Merritt did not exercise the option by December 31, 2008 and, accordingly, it terminated. The closing market price of our common stock on December 31, 2008 was \$0.08 per share, while the exercise price of the option was \$2.86 per share. In addition, at the time of his separation, Dr. Merritt held another option that was vested as to 8,334 shares. Pursuant to its terms, this option expired, unexercised, on April 28, 2008. The closing market price of our common stock on April 28, 2008 was \$0.52 per share, while the exercise price of this option was \$2.75 per share.

Under the letter agreement regarding terms of separation, Dr. Merritt represented that he had returned to us all of our property and data that had been in his possession or control and acknowledged that he is bound by an agreement with us regarding the use and confidentiality of our confidential information.



**Table of Contents****DESCRIPTION OF CAPITAL STOCK****Common Stock**

We are authorized to issue 200,000,000 shares of common stock, par value \$0.001 per share. Additional shares of authorized common stock may be issued, as authorized by our board of directors from time to time, without stockholder approval, except as may be required by applicable securities exchange requirements. The holders of common stock possess exclusive voting rights in us, except to the extent specified in the certificate of designation relating to our [ ]% Series C Convertible Preferred Stock and to the extent our board of directors specifies voting power with respect to any other class of securities issued in the future. Each holder of our common stock is entitled to one vote for each share held of record on each matter submitted to a vote of stockholders, including the election of directors. Stockholders do not have any right to cumulate votes in the election of directors.

Subject to preferences that may be granted to the holders of preferred stock, each holder of our common stock is entitled to share ratably in distributions to stockholders and to receive ratably such dividends as may be declared by our board of directors out of funds legally available therefor. In the event of our liquidation, dissolution or winding up, the holders of our common stock will be entitled to receive, after payment of all of our debts and liabilities and of all sums to which holders of any preferred stock may be entitled, the distribution of any of our remaining assets. Holders of our common stock have no conversion, exchange, sinking fund, redemption or appraisal rights (other than such as may be determined by our board of directors in its sole discretion) and have no preemptive rights to subscribe for any of our securities.

All of the outstanding shares of our common stock are, and the shares of common stock issued upon the conversion of any securities convertible into our common stock will be, fully paid and non-assessable. The shares of common stock offered by this prospectus or upon the conversion of any preferred stock or exercise of any warrants offered pursuant to this prospectus, when issued and paid for, will also be, fully paid and non-assessable.

***Securities Exchange Listing***

Our common stock is listed on the NYSE Amex under the symbol ANX.

***Transfer Agent and Registrar***

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company.

**Preferred Stock**

We are authorized to issue 1,000,000 shares of preferred stock, par value \$0.001 per share. Our board of directors is authorized to classify or reclassify any unissued portion of our authorized shares of preferred stock to provide for the issuance of shares of other classes or series, including preferred stock in one or more series. We may issue preferred stock from time to time in one or more class or series, with the exact terms of each class or series established by our board of directors. Our board of directors may issue preferred stock with voting and other rights that could adversely affect the voting power of the holders of our common stock without seeking stockholder approval. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of the common stock and may adversely affect the voting power of holders of common stock and reduce the likelihood that common stockholders will receive dividend payments and payments upon liquidation. The issuance of preferred stock may delay, deter or prevent a change in control.

The DGCL provides that the holders of preferred stock will have the right to vote separately as a class on any proposal involving fundamental changes in the rights of holders of that preferred stock. This right is in addition to any voting rights that may be provided for in any applicable certificate of designation.

***0% Series A Convertible Preferred Stock***

A special pricing committee of our board of directors, pursuant to authority delegated to it by our board of directors, previously designated 1,993 shares of our preferred stock 0% Series A Convertible Preferred Stock, and authorized the issuance and sale of these shares in connection with our June 2009 equity financing. The rights, preferences, privileges and restrictions of the 0% Series A Convertible Preferred Stock are set forth in the certificate of designation related to that series of preferred stock, which was filed as an exhibit to the registration statement of which this prospectus is a part. As of the date of this prospectus, all of the shares of this preferred stock have been converted into shares of our common stock pursuant to the certificate of designation and, in accordance with Section 11(i) of the certificate of designation, such shares have resumed the status of authorized but unissued shares of

preferred stock

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and are no longer designated as 0% Series A Convertible Preferred Stock.

***5% Series B Convertible Preferred Stock***

A special pricing committee of our board of directors, pursuant to authority delegated to it by our board of directors, previously designated 1,361 shares of our preferred stock 5% Series B Convertible Preferred Stock, and authorized the issuance and sale of these shares in connection with our July 2009 equity financing. The rights, preferences, privileges and restrictions of the 5% Series B Convertible Preferred Stock are set forth in the certificate of designation related to that series of preferred stock, which was filed as an exhibit to the registration statement of which this prospectus is a part. As of the date of this prospectus, all of the shares of this preferred stock have been converted into shares of our common stock pursuant to the certificate of designation and, in accordance with Section 11(i) of the certificate of designation, such shares have resumed the status of authorized but unissued shares of preferred stock and are no longer designated as 5% Series B Convertible Preferred Stock.

***[ ]% Series C Convertible Preferred Stock***

*The convertible preferred stock we are offering will be issued pursuant to a securities purchase agreement between each of the investors and us. We urge you to review the securities purchase agreement and the certificate of designation authorizing the convertible preferred stock, which is filed as an exhibit to the registration statement of which this prospectus forms a part, for a complete description of the terms and conditions applicable to the convertible preferred stock. The following brief summary of the material terms and provisions of the convertible preferred stock is subject to, and qualified in its entirety by, the certificate of designation authorizing the convertible preferred stock. This prospectus also relates to the offering of the shares of our common stock upon the conversion of the convertible preferred stock issued to the investors in this offering.*

We are authorized to issue [ ] shares of [ ]% Series C Convertible Preferred Stock, par value \$0.001 per share, pursuant to the Certificate of Designation of Preferences, Rights and Limitations of [ ]% Series C Convertible Preferred Stock we have filed with the Secretary of State of the State of Delaware. This certificate of designation was authorized by our board of directors without approval by our stockholders pursuant to the authority vested in the board of directors under our certificate of incorporation.

The [ ]% Series C Convertible Preferred Stock will be convertible at the option of the holder at any time into shares of our common stock at a conversion price of \$[ ] per share. The conversion price is subject to adjustment in the case of stock splits, stock dividends, combinations of shares and similar recapitalization transactions. The conversion price may also subject to adjustment if we issue rights, options or warrants to all holders of our common stock entitling them to subscribe for or purchase shares of our common stock at a price per share less than the daily weighted volume weighted average price of our common stock, if we distribute evidences of our indebtedness or assets or rights or warrants to subscribe for or purchase any security to all holders of our common stock, or if we consummate a fundamental corporate transaction such as a merger or consolidation, sale or other disposition of all or substantially all of our assets, or an exchange or tender offer accepted by the holders of 50% or more of our outstanding common stock. Subject to limited exceptions, a holder of shares of [ ]% Series C Convertible Preferred Stock will not have the right to convert any portion of its [ ]% Series C Convertible Preferred Stock if the holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to its conversion.

The [ ]% Series C Convertible Preferred Stock will be subject to automatic conversion into shares of our common stock upon the occurrence of a change in control of our company and we may become obligated to redeem the [ ]% Series C Convertible Preferred Stock upon the occurrence of certain triggering events, including the material breach by us of certain contractual obligations to the holders of the [ ]% Series C Convertible Preferred Stock, our inability to effect a registered issuance of shares of our common stock upon conversion of the [ ]% Series C Convertible Preferred Stock pursuant to the registration statement of which this prospectus is a part, our failure to have available a sufficient number of authorized and unreserved shares of common stock to issue upon conversion of the [ ]% Series C Convertible Preferred Stock, a redemption by us of more than a de minimis number of shares of common stock or other junior securities, the occurrence of a change in control of our company, the occurrence of certain insolvency events relating to our company, the failure of our common stock to continue to be listed or quoted for trading one of a few specified U.S. securities exchanges, and any judgment against us for more than \$150,000 that remains unvacated,

unbonded or unstayed for 60 days.

The [ ]% Series C Convertible Preferred Stock is entitled to receive cumulative dividends at the rate per share (as a percentage of the stated value of \$1,000 per share) of [ ]% per annum until [ ], payable quarterly. If the [ ]% Series C Convertible Preferred Stock is converted any time prior to [ ], we will pay the holder of the converted shares an amount equal to \$250 per \$1,000 in stated value (subject to adjustment) of the shares of [ ]% Series C Convertible Preferred Stock converted, less dividends paid with respect to such converted preferred shares before the relevant conversion date.

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Except as required by law, holders of the convertible preferred stock are not entitled to voting rights, except that the affirmative vote of the holders of a majority of the outstanding shares of convertible preferred stock is required to take certain actions that may adversely affect the rights or preferences of the holders of convertible preferred stock, including authorizing any class of stock ranking as to dividends, redemption or distribution of assets upon a liquidation, dissolution or winding up of our company senior to, or otherwise pari passu with, the [ ]% Series C Convertible Preferred Stock and increasing the number of authorized shares of [ ]% Series C Convertible Preferred Stock. In addition, without the prior written consent of the holders of at least 80% in stated value (initially \$1,000 per share, subject to adjustment) of the [ ]% Series C Convertible Preferred Stock, we may not amend our certificate of incorporation or bylaws in any manner that materially and adversely affects any rights of the holders of the [ ]% Series C Convertible Preferred Stock, repay or reacquire more than a de minimis number of shares of our common stock or securities convertible into or exercisable for our common stock, pay cash dividends or make distributions on our common stock or other securities, or enter into certain transactions with any affiliate of ours.

The securities purchase agreement pursuant to which the [ ]% Series C Convertible Preferred Stock will be issued prohibits us from issuing any shares of our common stock or any equity or debt securities convertible into our common stock for a period of 60-days after the closing of this offering.

We do not intend to list the [ ]% Series C Convertible Preferred Stock on any securities exchange or automated quotation system.

**Anti-Takeover Provisions**

The following is a summary of certain provisions of Delaware law, our certificate of incorporation and our bylaws. This summary does not purport to be complete and is qualified in its entirety by reference to the corporate law of Delaware and our certificate of incorporation and bylaws.

***Certificate of Incorporation and Bylaws***

***Preferred Stock.*** Under our amended and restated certificate of incorporation, our board of directors has the power to authorize the issuance of up to 1,000,000 shares of preferred stock and to determine the price, rights, preferences, privileges and restrictions, including voting rights, of those shares without further vote or action by our stockholders. The issuance of preferred stock may:

delay, defer or prevent a change in control;

discourage bids for our common stock at a premium over the market price of our common stock;

adversely affect the voting and other rights of the holders of our common stock; and

discourage acquisition proposals or tender offers for our shares and, as a consequence, inhibit fluctuations in the market price of our shares that could result from actual or rumored takeover attempts.

***Advance Notice Requirement.*** Stockholder nominations of individuals for election to our board of directors and stockholder proposals of other matters to be brought before an annual meeting of our stockholders must comply with the advance notice procedures set forth in our bylaws. Generally, to be timely, such notice must be received at our principal executive offices no later than the date specified in our proxy statement released to stockholders in connection with the preceding year's annual meeting of stockholders, which date shall be not earlier than the 120th day, nor later than the close of business on the 90th day, prior to the first anniversary of the date of the preceding year's annual meeting of stockholders.

***Special Meeting Requirements.*** Our bylaws provide that special meetings of our stockholders may only be called at the request of our board of directors, president (unless there is a chief executive officer who is not the president, in which case a special meeting may be called at any time by the chief executive officer and not the president) or chair of the board of directors. Only such business shall be considered at a special meeting as shall have been stated in the notice for such meeting.

***No Cumulative Voting.*** Our certificate of incorporation does not include a provision for cumulative voting for directors.

*Indemnification.* Our certificate of incorporation and our bylaws provide that we will indemnify our officers and directors against losses as they are incurred in investigations and legal proceedings resulting from their services to us, which may include service in connection with takeover defense measures.

***Delaware Anti-Takeover Statute***

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We are subject to Section 203 of the DGCL, an anti-takeover law. In general, Section 203 prohibits, with some exceptions, a publicly held Delaware corporation from engaging in a business combination with any interested stockholder for a period of three years following the date on which that stockholder became an interested stockholder, unless:

prior to that date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares of voting stock outstanding (but not the voting stock owned by the interested stockholder) those shares owned by persons who are directors and officers and by excluding employee stock plans in which employee participants do not have the right to determine whether shares held subject to the plan will be tendered in a tender or exchange offer; or

on or subsequent to that date, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66-2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines business combination to include any of the following:

any merger or consolidation involving the corporation and the interested stockholder;

any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;

subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any person who, together with the person's affiliates and associates, beneficially owns, or within three years prior to the determination of interested stockholder status did beneficially own, 15% or more of the outstanding voting stock of the corporation.

The above provisions may deter a hostile takeover or delay a change in control of our management or us.

**Table of Contents****DESCRIPTION OF WARRANTS**

*The warrants we are offering will be issued pursuant to a securities purchase agreement between each of the investors and us. We urge you to review the securities purchase agreement and the form of warrant, which are filed as exhibits to the registration statement of which this prospectus forms a part, for a complete description of the terms and conditions applicable to the warrants. The following brief summary of the material terms and provisions of the warrants is subject to, and qualified in its entirety by, the form of warrant we have filed. This prospectus also relates to the offering of the shares of our common stock upon the exercise, if any, of the warrants issued to the investors in this offering. The warrants we are issuing to the placement agent in this offering to purchase up to an aggregate of [ ] shares of our common stock are not covered by this prospectus.*

The warrants will have an exercise price of \$[ ] per share of our common stock and will be exercisable at the option of the holder at any time after the date that is six months from the date of issuance, which will be the closing date of this offering, through and including the date that is the fifth anniversary of the initial exercise date. Subject to limited exceptions, a warrant holder will not have the right to exercise any portion of the warrant if the holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after the exercise.

The exercise price of the warrants, and in some cases the number of shares issuable upon exercise of the warrants, will be subject to adjustment in the event of stock splits, stock dividends, combinations and similar events affecting our common stock. The conversion price may also be subject to adjustment if we issue rights, options or warrants to all holders of our common stock entitling them to subscribe for or purchase shares of our common stock at a price per share less than the daily weighted volume weighted average price of our common stock or if we distribute evidences of our indebtedness or assets or rights or warrants to subscribe for or purchase any security to all holders of our common stock. In addition, in the event we consummate a fundamental corporate transaction such as a merger or consolidation with or into another person or other reorganization event in which our common stock is converted or exchanged for securities, cash or other property, or we sell, lease, license or otherwise dispose of all or substantially all of our assets or we or another person acquires 50% or more of our outstanding common stock, then following such event, the holders of the warrants will be entitled to receive upon exercise of the warrants the same kind and amount of securities, cash or property which the holders would have received had they exercised the warrants immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume our obligations under the warrants.

The warrant holders must surrender payment in cash of the aggregate exercise price of the shares being acquired upon exercise of the warrants. If, however, we are unable to offer and sell the shares underlying these warrants pursuant to this prospectus due to the ineffectiveness of the registration statement of which this prospectus is a part, then the warrants may only be exercised on a net or cashless basis. No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

The warrants do not entitle the holders thereof to any voting rights, dividends or other rights as a stockholder of ours prior to the exercise of the warrants.

We do not intend to list the warrants on any securities exchange or automated quotation system.



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**PLAN OF DISTRIBUTION**

We have entered into an engagement letter agreement, dated [ ], 2009, with Rodman & Renshaw, LLC. Subject to the terms and conditions set forth in the agreement, Rodman & Renshaw has agreed to act as our placement agent in connection with this offering. The placement agent is not purchasing or selling any securities being offered by this prospectus, nor is it required to arrange for the purchase or sale of any specific number or dollar amount of the securities, but has agreed to use its reasonable best efforts to arrange for the sale of all of the securities in this offering. We will enter into a securities purchase agreement directly with investors in this offering.

There is no requirement that any minimum number of units or dollar amount of units be sold in this offering and there can be no assurance that we will sell all or any of the convertible preferred stock being offered.

Our agreement with the placement agent and the securities purchase agreement among us and the investors in this offering provide that the obligations of the placement agent and the investors are subject to certain conditions precedent, including, among other things, the absence of any material change in our business and our receipt of a customary written legal opinion.

We currently anticipate that the closing of this offering will take place on or about [ ], 2009. On the scheduled closing date, the following will occur:

we will receive funds in the amount of the aggregate purchase price of the securities being sold by us, less the amount of the fees we are paying to the placement agent and less the amount to be placed in escrow for the dividend and other payments due upon the convertible preferred stock;

the placement agent will receive the placement agent fees and compensation warrants to purchase shares of our common stock in accordance with the terms of the engagement letter agreement;

the escrow agent will receive the aggregate escrow amount to be released to make the dividend and other payments due upon the convertible preferred stock; and

we will deliver, or cause to be delivered, the shares of convertible preferred stock and the warrants being sold.

We have agreed to pay the placement agent a cash fee equal to 7.0% of the gross proceeds of the sale of the units in this offering. We have also agreed to grant compensation warrants to the placement agent to purchase that number of our shares of common stock equal to [ ] % of the number of shares of common stock underlying the convertible preferred stock sold by us in this offering, or up to an aggregate of [ ] shares, at an exercise price of \$[ ] per share. In compliance with the guidelines of the Financial Industry Regulatory Authority, or FINRA, under no circumstances will the fee, commission or discount received by the placement agent or any other FINRA member or independent broker-dealer exceed 8.0% of the gross proceeds to us in this offering or any other offering in the U.S. pursuant this prospectus.

The compensation warrants will be substantially on the same terms as the warrants offered hereby, except that they will have an exercise price of \$[ ] per share and will be exercisable at the option of the holder at any time after the date that is six months from the date of issuance, which will be the closing date of this offering, through and including the date that is the fifth anniversary of the date of issuance, and they will comply with FINRA Rule 5110(g) in that for a period of six months after their date of issuance (which shall not be earlier than the closing date of this offering), neither the compensation warrants nor any shares issued upon exercise of the compensation warrants shall be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person, except the transfer of any security:

by operation of law or by reason of reorganization of us;

to any FINRA member firm participating in this offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction described above for the remainder of the time period;

if the aggregate amount of our securities held by Rodman & Renshaw, LLC or related persons do not exceed 1% of the securities being offered;

that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating

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member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or

the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction set forth above for the remainder of the time period.

The following table shows the per unit and total fees we will pay to the placement agent in connection with the sale of the units offered pursuant to this prospectus, assuming the purchase of all of the units being offered hereby. Because there is no minimum offering amount required as a condition to closing in this offering, the actual total offering fees, if any, are not presently determinable and may be substantially less than the maximum amount set forth below.

|                               |       |
|-------------------------------|-------|
| Per unit placement agent fees | \$[ ] |
| Maximum offering total        | \$[ ] |

We estimate that the total expenses of the offering by us, excluding the placement agent's fees, will be approximately \$[ ].

The purchase price per unit and the exercise price of the warrants were determined based on negotiations with the purchasers and discussions with the placement agent.

We have agreed to indemnify the placement agent and its affiliates against certain liabilities, including liabilities relating to and arising out of its activities under the engagement letter agreement. We have also agreed to contribute to payments the placement agent may be required to make in respect of such liabilities.

We have agreed that we will not issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of our common stock, or securities that would entitle the holder thereof to acquire shares of our common stock, for a period of 60 days from the closing date of the offering without the prior written consent of purchasers holding at least two-thirds in interest of the convertible preferred stock and warrants (on an as converted basis) then outstanding.

A copy of the engagement letter agreement with the placement agent and the form of securities purchase agreement to be entered into with the investors in this offering have been filed as exhibits to the registration statement of which this prospectus is a part.

The placement agent has informed us that it will not engage in over-allotment, stabilizing transactions or syndicate covering transactions in connection with this offering. Notwithstanding anything to the contrary contained herein, we shall not be responsible for paying any fees or compensation to any persons pursuant to such arrangements.

The transfer agent for our common stock is American Stock Transfer & Trust Company. We will act as transfer agent for the convertible preferred stock and the warrants being offered hereby.

Our common stock is traded on the NYSE Amex under the symbol ANX. The convertible preferred stock and the warrants being offered hereby are not expected to be eligible for trading on any market.

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**LEGAL MATTERS**

The validity of the issuance of securities offered by this prospectus will be passed upon for us by DLA Piper LLP (US), San Diego, California.

**EXPERTS**

Our consolidated financial statements as of December 31, 2008 and 2007, and the related consolidated statements of operations, stockholders' equity (deficit) and comprehensive loss and cash flows for the years then ended and for the period from January 1, 2002 through December 31, 2008 have been incorporated by reference herein and in the registration statement of which this prospectus forms a part in reliance upon the report of J.H. Cohn LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

**WHERE YOU CAN FIND MORE INFORMATION**

We file reports, proxy statements and other information with the SEC. Copies of our reports, proxy statements and other information may be inspected and copied at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Copies of these materials can also be obtained by mail at prescribed rates from the Public Reference Room of the SEC, 100 F. Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy and information statements and other information regarding us and other issuers that file electronically with the SEC. The address of the SEC Internet site is [www.sec.gov](http://www.sec.gov). In addition, we make available on or through our Internet site copies of these reports, proxy statements and other information as soon as reasonably practicable after we electronically file or furnish them to the SEC. Our Internet site can be found at <http://www.adventrx.com>.

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the securities offered by this prospectus. This prospectus, which forms a part of that registration statement, does not contain all of the information set forth in the registration statement because certain parts of the registration statement are omitted in accordance with the rules and regulations of the SEC. The registration statement is available for inspection and copying as set forth above. Statements contained in this prospectus as to the contents of any contract or other document that we have filed as an exhibit to the registration statement of which this prospectus forms a part are qualified in their entirety by reference to such exhibits for a complete statement of their terms and conditions.

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**ADVENTRX PHARMACEUTICALS, INC. AND SUBSIDIARIES  
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**Table of Contents****Part I. Financial Information****Item 1. Financial Statements.**

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

|  | <b>March 31,<br/>2009</b> | <b>December 31,<br/>2008</b> |
|--|---------------------------|------------------------------|
|  | (Unaudited)               |                              |
| <b>Assets</b>  |                           |                              |
| Current assets:  |                           |                              |
| Cash and cash equivalents  | \$ 5,306,646              | \$ 9,849,904                 |
| Interest and other receivables   | 304,594                   | 121,736                      |
| Prepaid expenses   | 353,340                   | 477,902                      |
| Total current assets   | 5,964,580                 | 10,449,542                   |
| Property and equipment, net  | 166,527                   | 199,052                      |
| Other assets   | 60,247                    | 60,664                       |
| Total assets   | \$ 6,191,354              | \$ 10,709,258                |
| <b>Liabilities and Stockholders Equity</b>   |                           |                              |
| Current liabilities:   |                           |                              |
| Accounts payable   | 1,054,680                 | 1,721,376                    |
| Accrued liabilities  | 1,342,945                 | 2,077,188                    |
| Accrued compensation and payroll taxes   | 781,546                   | 915,459                      |
| Total current liabilities  | 3,179,171                 | 4,714,023                    |
| Stockholders equity:   |                           |                              |
| Common stock, \$0.001 par value; 200,000,000 shares authorized;<br>90,252,572 shares issued and outstanding at March 31, 2009 and<br>December 31, 2008 | 90,254                    | 90,254                       |
| Additional paid-in capital   | 131,925,397               | 131,751,439                  |
| Deficit accumulated during the development stage   | (129,003,468)             | (125,846,458)                |
| Total stockholders equity  | 3,012,183                 | 5,995,235                    |
| Total liabilities and stockholders equity  | \$ 6,191,354              | \$ 10,709,258                |

Note: The balance sheet at December 31, 2008 has been derived from audited financial statements at that date. It does not include, however, all of the information and notes required by accounting principles generally accepted in the United States of America for complete financial statements.

See accompanying notes to unaudited condensed consolidated financial statements.



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

|   | <b>Three months ended March</b> |                | <b>Inception</b>       |
|---|---------------------------------|----------------|------------------------|
|   | <b>31,</b>                      |                | <b>(June 12, 1996)</b> |
|   | <b>2009</b>                     | <b>2008</b>    | <b>through</b>         |
|   |                                 |                | <b>March 31, 2009</b>  |
| Revenues:   |                                 |                |                        |
| Net sales   | \$                              | \$             | \$ 174,830             |
| Grant revenue   |                                 |                | 129,733                |
| Licensing revenue   | 300,000                         |                | 1,300,000              |
| Total net revenues  | 300,000                         |                | 1,604,563              |
| Cost of goods sold  |                                 |                | 51,094                 |
| Gross margin  | 300,000                         |                | 1,553,469              |
| Operating expenses:   |                                 |                |                        |
| Research and development  | 1,647,300                       | 3,820,307      | 63,661,856             |
| Selling, general and administrative                             | 1,779,240                       | 2,365,194      | 44,748,442             |
| Depreciation and amortization                                   | 32,246                          | 46,779         | 10,830,317             |
| 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  | 3,458,786                       | 6,232,280      | 135,543,811            |
| Loss from operations  | (3,158,786)                     | (6,232,280)    | (133,990,342)          |
| Loss on fair value of warrants                                  |                                 |                | (12,239,688)           |
| Interest income   |                                 |                | 4,582,028              |
| Other income  | 1,776                           | 299,208        | 114,154                |
| Interest expense  |                                 |                | (179,090)              |
| Loss before cumulative effect of change in accounting principle | (3,157,010)                     | (5,933,072)    | (141,712,938)          |
| Cumulative effect of change in accounting principle             |                                 |                | (25,821)               |
| Net loss  | (3,157,010)                     | (5,933,072)    | (141,738,759)          |
| Preferred stock dividends                                       |                                 |                | (621,240)              |
| Net loss applicable to common stock                             | \$ (3,157,010)                  | \$ (5,933,072) | \$ (142,359,999)       |



|   |           |           |
|---|-----------|-----------|
| Net loss per common share basic and diluted | \$ (0.03) | \$ (0.07) |
|---|-----------|-----------|

|   |            |            |
|---|------------|------------|
| Weighted average shares basic and diluted | 90,252,572 | 90,252,572 |
|---|------------|------------|

See accompanying notes to unaudited condensed consolidated financial statements.

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

|   | <b>Three months ended March</b> |                | <b>Inception</b>       |
|---|---------------------------------|----------------|------------------------|
|   | <b>31,</b>                      |                | <b>(June 12, 1996)</b> |
|   | <b>2009</b>                     | <b>2008</b>    | <b>through</b>         |
|   |                                 |                | <b>March 31,</b>       |
|   |                                 |                | <b>2009</b>            |
| Cash flows from operating activities:                                       |                                 |                |                        |
| Net loss  | \$ (3,157,010)                  | \$ (5,933,072) | \$ (141,738,759)       |
| Adjustments to reconcile net loss to net cash used in operating activities: |                                 |                |                        |
| Depreciation and amortization   | 32,246                          | 46,779         | 10,380,317             |
| Loss (gain) on disposal of fixed assets                                     | 279                             | 188            | (3,319)                |
| Fair value of warrant liability   |                                 |                | 12,239,688             |
| Expenses related to employee stock options                                  | 173,958                         | 638,416        | 8,026,520              |
| Expense related to stock options issued to non-employees                    |                                 | 5,680          | 204,664                |
| Expenses paid by issuance of common stock                                   |                                 |                | 1,341,372              |
| Expenses paid by warrants   |                                 |                | 573,357                |
| Expenses paid by preferred stock  |                                 |                | 142,501                |
| Expenses related to stock warrants issued                                   |                                 |                | 612,000                |
| Accretion of discount   |                                 | (131,929)      | (1,249,853)            |
| Amortization of debt discount   |                                 |                | 450,000                |
| Gain /loss on disposals of property and equipment                           |                                 |                | (354,640)              |
| Accretion of discount on investments in securities                          |                                 |                | 30,036                 |
| Forgiveness of employee receivable  |                                 |                | 5,702,130              |
| Impairment loss write-off of goodwill                                       |                                 |                | 178,936                |
| Equity in loss of investee  |                                 |                | 10,422,130             |
| In-process research and development   |                                 |                | 152,866                |
| Write-off of license agreement  |                                 |                | 108,000                |
| Write-off of assets available-for-sale                                      |                                 |                | 25,821                 |
| Cumulative effect of change in accounting principle                         |                                 |                |                        |
| Changes in assets and liabilities, net of effect of acquisitions:           |                                 |                |                        |
| Increase (decrease) in prepaid expenses and other assets                    | (57,879)                        | 17,648         | (965,550)              |
| Increase (decrease) in accounts payable and accrued liabilities             | (1,534,852)                     | 588,129        | 3,355,878              |
| Decrease in other long-term liabilities                                     |                                 | (5,352)        |                        |
| Net cash used in operating activities                                       | (4,543,258)                     | (4,773,513)    | (90,365,905)           |
| Cash flows from investing activities:                                       |                                 |                |                        |
| Purchases of short-term investments   |                                 | (6,437,340)    | (111,183,884)          |
| Proceeds from sales and maturities of short-term investments                |                                 | 16,750,000     | 112,788,378            |
| Purchases of property and equipment   |                                 | (20,522)       | (1,030,354)            |

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|   |              |               |              |
|---|--------------|---------------|--------------|
| Proceeds from sale of property and equipment                    |              |               | 33,906       |
| 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   |               | 1,025,234    |
| 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            | (4,543,258)  | 5,518,625     | 5,306,646    |
| Cash and cash equivalents at beginning of period                | 9,849,904    | 14,780,739    |              |
| Cash and cash equivalents at end of period                      | \$ 5,306,646 | \$ 20,299,364 | \$ 5,306,646 |

See accompanying notes to unaudited condensed consolidated financial statements.

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**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, 2008 included in our Annual Report on Form 10-K filed with the SEC on March 27, 2009 ( 2008 Annual Report ). The condensed consolidated balance sheet as of December 31, 2008 has been derived from the audited consolidated financial statements included in the 2008 Annual Report. In the opinion of management, these interim condensed 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 an accumulated net loss of approximately \$141.7 million and recurring negative cash flows from operations. Currently, we are focused primarily on evaluating strategic options, including the sale or exclusive license of one or more of our product candidate programs, a strategic business merger and other similar transactions. We implemented restructuring and cost-cutting measures in October 2008, January 2009 and March 2009 and eliminated all but a select, small number of full-time employees and discontinued substantially all of our development activities and fundamental business operations to provide additional time to consummate a strategic transaction or otherwise obtain financing.

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. Going Concern**

The accompanying unaudited interim condensed consolidated financial statements have been prepared assuming that the Company will continue as a going concern. Going concern contemplates the realization of assets and the satisfaction of liabilities in the normal course of business over a reasonable length of time. However, as a result of the Company's continued losses and current cash and financing position, such realization of assets or satisfaction of liabilities, without substantial adjustments, is uncertain. The future of the Company is dependent upon its ability to obtain additional funding.

In December 2008, the Company announced that it was evaluating various strategic options, including the sale or exclusive license of one or more of the Company's product candidate programs, a strategic business merger and other similar transactions, certain of which would result in a change of control of the Company. However, progress with potential strategic transaction partners has not been as rapid or on terms as attractive as the Company would have desired. The Company previously has taken steps designed to provide additional time to consummate a strategic transaction or otherwise obtain financing, including eliminating all but a select, small number of full-time employees and discontinuing substantially all of its development activities and fundamental business operations. As a result, its ability to further curtail expenses to provide further time is limited, and the restructuring and cost-cutting measures it has taken may not provide it with sufficient additional time to

consummate a strategic transaction or otherwise obtain financing. Further, in May 2009, the Company announced that the primary endpoint in its bioequivalence study of ANX-514 was not met, that the resulting uncertainty around the cost and timeline to approval by the U.S. Food and Drug Administration, or FDA, of ANX-514 may adversely impact the Company's on-going strategic transaction discussions, and that, in light of its working capital, the Company is evaluating both its strategic and non-strategic options. Accordingly, in May 2009, the Company began to evaluate the process of winding-down its operations, including engaging a third-party firm to assist it with its evaluation. There can be no assurances that we will continue to pursue our strategic transaction alternatives or, if we do, that we will be able to consummate a strategic transaction on a timely basis, or at all. The Company likely will not be able to continue as a going concern, unless, as part of a strategic transaction or otherwise, it raises adequate capital. Given this uncertainty, there is significant doubt as to the Company's ability to continue as a going concern.

The accompanying financial statements for the quarter ended March 31, 2009 do not include any adjustments related to the recovery and classification of recorded assets, or the amounts and classification of liabilities, that might be necessary in the event the Company cannot continue as a going concern.

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**Table of Contents****3. 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.

**4. Fair Value Measurements**

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. As a result, we only partially adopted FAS 157 as it relates to our financial assets and liabilities until we are required to apply this pronouncement to our non-financial assets and liabilities beginning with fiscal year 2009. The adoption of FAS 157 did not have a material impact on our consolidated results of operations or financial condition.

In October 2008, the FASB issued FSP No. FAS 157-3 Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active ( FSP FAS 157-3 ). FSP FAS 157-3 clarifies the application of FAS No. 157, in a market that is not active and provides an example to illustrate key considerations in determining the fair value of a financial asset when the market for that financial asset is not active. FSP FAS 157-3 is effective upon issuance, including prior periods for which financial statements have not been issued. The adoption of FSP FAS 157-3 had no impact on our consolidated results of operations, financial position or cash flows.

FAS 157 defines fair value, establishes a framework for measuring fair value under U.S. GAAP 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. FAS 157 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 (which consisted solely of cash equivalents) measured at fair value on a recurring basis as of March 31, 2009:

|                    | <b>Level 1</b> | <b>Level 2</b> | <b>Level 3</b> | <b>Total</b> |
|--------------------|----------------|----------------|----------------|--------------|
| Money Market funds | \$ 5,306,646   | \$             | \$             | \$ 5,306,646 |
| Total              | \$ 5,306,646   | \$             | \$             | \$ 5,306,646 |

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.

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**Table of Contents****5. Share-Based Payments**

Estimated share-based compensation expense related to equity awards granted to employees for the three months ended March 31, 2009 and 2008 was as follows:

|   | <b>Three Months Ended March<br/>31,</b> |             |
|---|---|-------------|
|   | <b>2009</b>                             | <b>2008</b> |
| Selling, general and administrative expense                             | \$ 199,334                              | \$ 332,720  |
| Research and development expense  | (25,376)                                | 305,696     |
| Share-based compensation expense before taxes                           | 173,958                                 | 638,416     |
| Related income tax benefits   |   |             |
| Share-based compensation expense  | \$ 173,958                              | \$ 638,416  |
| Net share-based compensation expense per common share basic and diluted | \$ 0.002                                | \$ 0.001    |

In January 2009, we granted under our 2008 Omnibus Incentive Plan restricted stock units to seven employees that represented the right to receive in the aggregate 3,700,000 shares of our common stock. These units will vest immediately prior to a strategic transaction (as defined in the documentation evidencing the grant of the units). We will record share-based compensation expense in connection with these restricted stock units, if at all, only if a strategic transaction is consummated.

Since we have a net operating loss carryforward as of March 31, 2009, 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, 2009 and 2008.

At March 31, 2009, total employee stock compensation expense included forfeitures for terminated employees resulting in a credit to research and development stock compensation expense for the three month period ended March 31, 2009.

At March 31, 2009, total unrecognized estimated compensation cost related to non-vested employee and non-employee director share-based awards granted prior to that date was \$1.7 million, which is expected to be recognized over a weighted-average period of 3.0 years. During the three months ended March 31, 2009 and 2008, we granted 0 and 1,802,500 stock options, respectively, to our employees and non-employee directors with an estimated weighted-average grant-date fair value of \$0 and \$0.51.

Estimated share-based compensation expense related to equity awards granted to non-employee consultants was \$0 and \$6,000 for the three months ended March 31, 2009 and 2008, respectively.

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**Table of Contents****6. 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, warrants and restricted stock units 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, warrants and restricted stock units were excluded from the calculation.

We have excluded the following options, warrants and restricted stock units from the calculation of diluted net loss per common share for the three months ended March 31, 2009 and 2008 because they are anti-dilutive, due to the net loss:

|                        | <b>2009</b> | <b>2008</b> |
|------------------------|-------------|-------------|
| Warrants               | 13,373,549  | 13,373,549  |
| Options                | 3,509,897   | 5,589,483   |
| Restricted Stock Units | 3,700,000   |             |
|                        | 20,583,446  | 18,963,032  |

**7. 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, 2009 and 2008, comprehensive loss was \$3.2 million and \$5.9 million, respectively. For the three months ended March 31, 2008 and 2007 and the period from inception (June 12, 1996) through March 31, 2009, comprehensive loss was \$5.9 million, \$5.1 million and \$141.7 million, respectively.

**8. Recent Accounting Pronouncements**

In April 2009, the FASB issued three new FASB Staff Positions ( FSP ) relating to fair value accounting; FSP FAS 157-4, Determining Fair Value When the Volume and Level of Activity of the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly, FSP FAS 115-2 and FSP FAS 124-2, Recognition and Presentation of Other-Than-Temporary Impairments and FSP FAS 107-1/APB 28-1, Interim Disclosures about Fair Value of Financial Instruments. These FSPs impact certain aspects of fair value measurements, impairments of securities and related disclosures. The provisions of these FSPs are effective for interim and annual periods ending after June 15, 2009. The Company does not expect the impact of adopting these FSPs to have a material effect on its consolidated results of operations or financial position.

In April 2009, the FASB issued FSP FAS 141(R) -1, Accounting for Assets Acquired and Liabilities Assumed in a Business Combination That Arises from Contingencies. The FSP amends and clarifies FASB Statement No. 141 (revised 2007), Business Combinations to address application issues on initial recognition and measurement, subsequent measurement and accounting, and disclosure of assets and liabilities arising from contingencies in a business combination. This FSP is effective for assets or liabilities arising from contingencies in business combinations for which the acquisition date is on or after the beginning of the first annual reporting beginning on or after December 15, 2008.

**9. Licensing Revenue**

In March 2009, we announced that we and our wholly-owned subsidiary, SD Pharmaceuticals, Inc., had entered into a license agreement with respect to our product candidate ANX-514 (docetaxel emulsion) (the License Agreement ) with Shin Poong Pharmaceutical Co., Ltd., a company organized under the laws of the Republic of Korea ( Shin Poong ), pursuant to which we granted to Shin Poong an exclusive license, including the right to sublicense, to research, develop, make, have made, use, offer for sale, sell and import licensed products, in each case solely for the treatment of cancer by intravenous administration of formulations of docetaxel as emulsified products and solely in South Korea. Under the terms of the License Agreement, we will receive an upfront licensing fee of \$0.3 million, a regulatory milestone payment of either \$0.2 million or \$0.4 million (depending on whether Shin Poong is required by the Korea Food and Drug Administration to conduct a bioequivalence or clinical study in human subjects prior to receipt of regulatory approval) upon receipt of regulatory approval for marketing a licensed product in South Korea, one-time commercial milestone payments tied to annual net sales of licensed products in an aggregate amount of up

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to \$1.5 million and royalty payments on net sales of licensed products. Shin Poong is responsible for all development and commercial activities related to ANX-514 in South Korea. If Shin Poong is required by the Korea Food and Drug Administration to conduct a bioequivalence or clinical trial in human subjects prior to receipt of regulatory approval and we elect not to supply product to conduct such trial, which supply obligation is subject to limitations, we will pay Shin Poong \$0.1 million.

We received the \$0.3 million upfront licensing fee in April 2009. We recognized \$0.3 million in licensing revenue in the three-month period ended March 31, 2009 because we met the criteria under our revenue recognition policy in that period.

**10. Supplementary Cash Flow Information**

Noncash investing and financing transactions not presented on the condensed consolidated statements of cash flows for the three months ended March 31, 2009 and 2008 and for the period from inception (June 12, 1996) through March 31, 2009 are as follows:

|   | <b>Three months ended</b> |             | <b>Inception</b>       |
|---|---------------------------|-------------|------------------------|
|   | <b>March 31,</b>          |             | <b>(June 12, 1996)</b> |
|   | <b>2009</b>               | <b>2008</b> | <b>through</b>         |
|   |                           |             | <b>March 31,</b>       |
|   |                           |             | <b>2009</b>            |
| Supplemental disclosures of cash flow information:              |                           |             |                        |
| Interest paid   | \$                        | \$          | \$ 179,090             |
| Income taxes paid   |                           |             |                        |
| 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                                  |                           |             | (34,737)               |
| 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      | 3,825                  |
| Unrealized (gain) loss on short-term investments                |                           | (6,101)     |                        |

**11. Severance Related Expenses**

In January 2009, as part of a restructuring to reduce operating costs, we completed a work force reduction of six employees. As a result of the work force reduction, in accordance with SFAS No. 146, Accounting for Costs Associated with Exit or Disposal Activities, we recorded severance-related charges of \$174,000, of which \$86,000 was recorded in research and development and the remainder in selling, general, and administrative expenses. Severance-related charges of \$144,000 were recorded in the first quarter of 2009 and the remainder will be recorded in the second quarter of 2009.

On April 3, 2009, we effected the reduction in our full-time workforce to small, select number of full-time employees that we announced on March 20, 2009. In addition, we have discontinued substantially all of our development activities and fundamental business operations. Our remaining employees will focus their efforts primarily on continuing to evaluate and execute strategic options. As a result of this reduction in force, we recorded severance-related charges of \$163,000, of which \$114,000 was recorded in the first quarter of 2009 and \$49,000 is expected to be recorded in the second quarter of 2009. The severance-related charges that we expect to incur in the second quarter of 2009 are subject to a number of assumptions, and actual results may differ. We may also incur other charges not currently contemplated due to events that may occur as a result of, or associated with, this and

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other reductions in our workforce.

**12. Subsequent Event**

In May 2009, we announced that we did not meet the primary endpoint in our bioequivalence study of ANX-514, that the resulting uncertainty around the cost and timeline to FDA approval of ANX-514 may adversely impact our on-going strategic transaction discussions, and that, in light of our working capital, we are evaluating both our strategic and non-strategic options. Accordingly, in May 2009, the Company began to evaluate the process of winding-down its operations, including engaging a third-party firm to assist it with its evaluation.

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Stockholders  
ADVENTRX Pharmaceuticals, Inc.

We have audited the accompanying consolidated balance sheets of ADVENTRX Pharmaceuticals, Inc. and Subsidiaries (a development stage enterprise) as of December 31, 2008 and 2007, and the related consolidated statements of operations, stockholders' equity (deficit) and comprehensive loss and cash flows for the years then ended and for the period from January 1, 2002 through December 31, 2008. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of ADVENTRX Pharmaceuticals, Inc. and Subsidiaries (a development stage enterprise) as of December 31, 2008 and 2007, and the results of operations and their cash flows for years then ended and for the period from January 1, 2002 through December 31, 2008, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 3 to the consolidated financial statements, effective January 1, 2007, ADVENTRX Pharmaceuticals, Inc. and Subsidiaries adopted the Financial Accounting Standards Board Staff Position on No. EITF 00-19-2, Accounting for Registration Payment Arrangements.

As discussed in Note 3 to the consolidated financial statements, certain prior year amounts have been restated. The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the consolidated financial statements, the Company has suffered recurring losses from operations and negative cash flows from operations that raise substantial doubt about its ability to continue as a going concern. Management's plans in regards to these matters are also described in Note 2. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ J.H. COHN LLP  
San Diego, California  
March 25, 2009

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

|   | <b>December 31,</b> |                   |
|---|---------------------|-------------------|
|   | <b>2008</b>         | <b>2007</b>       |
| <i>Assets</i>   |                     |                   |
| Current assets:   |                     |                   |
| Cash and cash equivalents   | \$ 9,849,904        | \$ 14,780,739     |
| Short-term investments  |                     | 18,682,417        |
| Interest and other receivables  | 121,736             | 72,029            |
| Prepaid expenses  | 477,902             | 615,691           |
| <br>Total current assets  | <br>10,449,542      | <br>34,150,876    |
| Property and equipment, net   | 199,052             | 332,444           |
| Other assets  | 60,664              | 58,305            |
| <br>Total assets  | <br>\$ 10,709,258   | <br>\$ 34,541,625 |
| <br><i>Liabilities and Stockholders Equity</i>  |                     |                   |
| Current liabilities:  |                     |                   |
| Accounts payable  | \$ 1,721,376        | \$ 552,143        |
| Accrued liabilities   | 2,077,188           | 2,317,910         |
| Accrued compensation and payroll taxes  | 915,459             | 622,762           |
| <br>Total current liabilities   | <br>4,714,023       | <br>3,492,815     |
| Long-term liabilities   |                     | 14,270            |
| <br>Total liabilities   | <br>4,714,023       | <br>3,507,085     |
| <br>Commitments and contingencies   |                     |                   |
| <br>Stockholders equity:  |                     |                   |
| Common stock, \$0.001 par value; 200,000,000 shares authorized;<br>90,252,572 shares issued and outstanding at December 31, 2008 and 2007 | 90,254              | 90,254            |
| Additional paid-in capital  | 131,751,439         | 130,140,549       |
| Deficit accumulated during the development stage  | (125,846,458)       | (99,198,965)      |
| Accumulated other comprehensive income  |                     | 2,702             |
| <br>Total stockholders equity   | <br>5,995,235       | <br>31,034,540    |
| <br>Total liabilities and stockholders equity   | <br>\$ 10,709,258   | <br>\$ 34,541,625 |

See accompanying notes to consolidated financial statements.





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

|   | Years Ended December 31, |              | Inception<br>(June 12, 1996)<br>Through<br>December 31,<br>2008<br>(as restated) |
|---|--------------------------|--------------|--|
|   | 2008                     | 2007         |  |
| Licensing revenue   | \$ 500,000               | \$ 500,000   | \$ 1,000,000   |
| Net sales   |                          |              | 174,830  |
| Grant revenue   |                          |              | 129,733  |
| Total net revenue   | 500,000                  | 500,000      | 1,304,563  |
| Cost of sales   |                          |              | 51,094   |
| Gross margin  | 500,000                  | 500,000      | 1,253,469  |
| Operating expenses:   |                          |              |  |
| Research and development  | 17,922,183               | 15,934,409   | 62,014,556   |
| Selling, general and administrative                             | 9,719,613                | 8,678,853    | 42,969,202   |
| Depreciation and amortization                                   | 168,039                  | 197,783      | 10,798,071   |
| 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  | 27,809,835               | 24,811,045   | 132,085,025  |
| Loss from operations  | (27,309,835)             | (24,311,045) | (130,831,556)  |
| Loss on fair value of warrants                                  |                          |              | (12,239,688)   |
| Interest income   | 549,964                  | 2,169,005    | 4,582,028  |
| Interest expense  |                          |              | (179,090)  |
| Other income  | 112,378                  |              | 112,378  |
| Loss before income taxes  | (26,647,493)             | (22,142,040) | (138,555,928)  |
| Provision for income taxes                                      |                          |              |  |
| Loss before cumulative effect of change in accounting principle | (26,647,493)             | (22,142,040) | (138,555,928)  |
| Cumulative effect of change in accounting principle             |                          |              | (25,821)   |
| Net loss  | (26,647,493)             | (22,142,040) | (138,581,749)  |

|   |                 |                 |                  |
|---|-----------------|-----------------|------------------|
| Preferred stock dividends                             |                 |                 | (621,240)        |
| Net loss applicable to common stock                   | \$ (26,647,493) | \$ (22,142,040) | \$ (139,202,989) |
| Loss per common share basic and diluted               | \$ (0.30)       | \$ (0.25)       |                  |
| Weighted average shares outstanding basic and diluted | 90,252,572      | 89,912,732      |                  |

See accompanying notes to consolidated financial statements.

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**ADVENTRX Pharmaceuticals, Inc. and Subsidiaries**  
(A Development Stage Enterprise)  
**Consolidated Statements of Stockholders' Equity (Deficit) and Comprehensive Loss**  
Inception (June 12, 1996) Through December 31, 2008

|   | Cumulative convertible preferred stock, series A |        |        | Cumulative convertible preferred stock, series B |           |        | Cumulative convertible preferred stock, series C |        |        | Common stock |                 | Deficit Accumulated         |                   | Total                   |                  |                    |
|---|--|--------|--------|--|-----------|--------|--|--------|--------|--------------|-----------------|-----------------------------|-------------------|-------------------------|------------------|--------------------|
|   | Shares   | Amount | Shares | Amount   | Shares    | Amount | Shares   | Amount | Shares | Amount       | paid-in capital | comprehensive income (loss) | development stage | treasury stock, at cost | equity (deficit) | Comprehensive loss |
|   |  |        |        |  |           |        |  |        |        |              |                 |                             |                   |                         |                  |                    |
| Balances at June 12, 1996 (date of incorporation)                   | \$   |        | \$     |  | \$        |        | \$   |        | \$     |              | \$              | \$                          |                   | \$                      | \$               |                    |
| Sale of common stock without par value                              |  |        |        |  | 503       | 5      |  |        |        |              | 5               |                             |                   |                         |                  | 10                 |
| Change in par value of common stock                                 |  |        |        |  |           | (4)    |  |        |        |              | 4               |                             |                   |                         |                  |                    |
| Issuance of common stock and net liabilities assumed in acquisition |  |        |        |  | 1,716,132 | 1,716  |  |        |        |              | 3,224           |                             | (18,094)          |                         | (13,154)         |                    |
| Issuance of common stock  |  |        |        |  | 2,010,111 | 2,010  |  |        |        |              | 456             |                             | (2,466)           |                         |                  |                    |
| Net loss  |  |        |        |  |           |        |  |        |        |              |                 |                             | (259,476)         |                         | (259,476)        | \$ (259,476)       |
| Balances at December 31, 1996                                       |  |        |        |  | 3,726,746 | 3,727  |  |        |        |              | 3,689           |                             | (280,036)         |                         | (272,620)        | \$ (259,476)       |
| Sale of common stock, net of offering costs of \$9,976              |  |        |        |  | 1,004,554 | 1,004  |  |        |        |              | 1,789,975       |                             |                   |                         | 1,790,979        |                    |
| Issuance of common stock in acquisition                             |  |        |        |  | 375,891   | 376    |  |        |        |              | 887,874         |                             |                   |                         | 888,250          |                    |

|  |           |       |           |             |             |               |
|--|-----------|-------|-----------|-------------|-------------|---------------|
| Minority interest deficiency at acquisition charged to the Company |           |       |           | (45,003)    | (45,003)    |               |
| Net loss   |           |       |           | (1,979,400) | (1,979,400) | \$(1,979,400) |
| Balances at December 31, 1997                                      | 5,107,191 | 5,107 | 2,681,538 | (2,304,439) | 382,206     | \$(1,979,400) |
| Rescission of acquisition  | (375,891) | (376) | (887,874) | 561,166     | (327,084)   |               |
| Issuance of common stock at conversion of notes payable            | 450,264   | 451   | 363,549   |             | 364,000     |               |
| Expense related to stock warrants issued                           |           |       | 260,000   |             | 260,000     |               |
| Net loss   |           |       |           | (1,204,380) | (1,204,380) | \$(1,204,380) |
| Balances at December 31, 1998                                      | 5,181,564 | 5,182 | 2,417,213 | (2,947,653) | (525,258)   | \$(1,204,380) |
| Sale of common stock   | 678,412   | 678   | 134,322   |             | 135,000     |               |
| Expense related to stock warrants issued                           |           |       | 212,000   |             | 212,000     |               |
| Net loss   |           |       |           | (1,055,485) | (1,055,485) | \$(1,055,485) |
| Balances at December 31, 1999                                      | 5,859,976 | 5,860 | 2,763,535 | (4,003,138) | (1,233,743) | \$(1,055,485) |
| Sale of preferred stock, net of offering costs of \$76,500         | 3,200     | 32    | 3,123,468 |             | 3,123,500   |               |
| Issuance of common stock   | 412,487   | 412   | 492,085   |             | 492,497     |               |

|   |       |    |            |        |            |             |  |             |               |
|---|-------|----|------------|--------|------------|-------------|--|-------------|---------------|
| at conversion<br>of notes and<br>interest<br>payable                |       |    |            |        |            |             |  |             |               |
| Issuance of<br>common stock<br>at conversion<br>of notes<br>payable |       |    | 70,354     | 70     | 83,930     |             |  | 84,000      |               |
| Issuance of<br>common stock<br>to settle<br>obligations             |       |    | 495,111    | 496    | 1,201,664  |             |  | 1,202,160   |               |
| Issuance of<br>common stock<br>for acquisition                      |       |    | 6,999,990  | 7,000  | 9,325,769  |             |  | 9,332,769   |               |
| Issuance of<br>warrants for<br>acquisition                          |       |    |            |        | 4,767,664  |             |  | 4,767,664   |               |
| Stock issued<br>for acquisition<br>costs                            |       |    | 150,000    | 150    | 487,350    |             |  | 487,500     |               |
| Expense<br>related to<br>stock warrants<br>issued                   |       |    |            |        | 140,000    |             |  | 140,000     |               |
| Dividends<br>payable on<br>preferred stock                          |       |    |            |        | (85,000)   |             |  | (85,000)    |               |
| Cashless<br>exercise of<br>warrants                                 |       |    | 599,066    | 599    | (599)      |             |  |             |               |
| Net loss  |       |    |            |        |            | (3,701,084) |  | (3,701,084) | \$(3,701,084) |
| Balances at<br>December 31,<br>2000                                 | 3,200 | 32 | 14,586,984 | 14,587 | 22,299,866 | (7,704,222) |  | 14,610,263  | \$(3,701,084) |

See accompanying notes to consolidated financial statements.

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**ADVENTRX Pharmaceuticals, Inc. and Subsidiaries**  
 (A Development Stage Enterprise)  
**Consolidated Statements of Stockholders' Equity (Deficit) and Comprehensive Loss**  
 Inception (June 12, 1996) Through December 31, 2008

| Cumulative convertible preferred stock, series A |        | Cumulative convertible preferred stock, series B |        | Cumulative convertible preferred stock, series C |        | Common stock |        | Additional paid-in capital |           | Comprehensive income (loss) |      | Development stage stock, at cost |               | Treasury stock |  | Total stockholders' equity (deficit) |                             |
|--|--------|--|--------|--|--------|--------------|--------|----------------------------|-----------|-----------------------------|------|----------------------------------|---------------|----------------|--|--------------------------------------|-----------------------------|
| Shares   | Amount | Shares   | Amount | Shares   | Amount | Shares       | Amount | capital                    | (loss)    | stage                       | cost | equity                           | Comprehensive |                |  |                                      |                             |
|  |        |  |        |  |        |              |        |                            |           |                             |      |                                  |               |                |  |                                      |                             |
|  |        |  |        |  |        |              |        |                            | (256,000) |                             |      |                                  |               |                |  |                                      | (256,000)                   |
|  |        |  |        |  |        |              |        |                            | (55,279)  |                             |      |                                  |               |                |  |                                      | (55,279)                    |
|  |        |  |        |  |        |              |        |                            | 47,741    |                             |      |                                  |               |                |  |                                      | 47,741                      |
|  |        |  |        |  |        | 218,493      | 219    |                            | (219)     |                             |      |                                  |               |                |  |                                      |                             |
|  |        |  |        |  |        | 93,421       | 93     |                            | 212,907   |                             |      |                                  |               |                |  |                                      | 213,000                     |
|  |        |  |        |  |        |              |        |                            | 450,000   |                             |      |                                  |               |                |  |                                      | 450,000                     |
|  |        |  |        |  |        |              |        |                            | 167,138   |                             |      |                                  |               |                |  |                                      | 167,138                     |
|  |        |  |        |  |        | 106,293      | 106    |                            | 387,165   |                             |      |                                  |               |                |  |                                      | 387,271                     |
| 137  | 1      |  |        |  |        |              |        |                            | 136,499   |                             |      |                                  |               |                |  |                                      | 136,500                     |
|  |        |  |        |  |        |              |        |                            |           | (16,339,120)                |      |                                  |               |                |  |                                      | (16,339,120) \$(16,339,120) |

|                   |         |       |            |        |            |              |                |
|-------------------|---------|-------|------------|--------|------------|--------------|----------------|
| t<br>31,          | 3,337   | 33    | 15,005,191 | 15,005 | 23,389,818 | (24,043,342) | (638,486) \$(1 |
| e of              |         |       |            |        | (242,400)  |              | (242,400)      |
|                   |         |       | 240,000    | 240    | 117,613    |              | 117,853        |
| f                 |         |       | 100,201    | 100    | (100)      |              |                |
|                   |         |       | 344,573    | 345    | 168,477    |              | 168,822        |
| .50               | 200,000 | 2,000 |            |        | 298,000    |              | 300,000        |
| n of              |         |       | 70,109     | 701    | 700,392    |              | 701,093        |
| stock             | (3,000) | (30)  | 1,800,000  | 1,800  | (1,770)    |              |                |
| f<br>o<br>ing     |         |       |            |        | 335,440    |              | 335,440        |
| f<br>stock        |         |       |            |        | 163,109    |              | 163,109        |
| f                 |         |       | 6,292      | 6      | 12,263     |              | 12,269         |
| y                 | 136     | 1     |            |        | 6,000      |              | 6,001          |
|                   |         |       |            |        | 329,296    |              | 329,296        |
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(2,105,727) (2,105,727) \$ (

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473 4 200,000 2,000 70,109 701 17,496,257 17,496 25,276,138 (26,149,069) (852,730) \$ (

See accompanying notes to consolidated financial statements.

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**ADVENTRX Pharmaceuticals, Inc. and Subsidiaries**  
(A Development Stage Enterprise)  
**Consolidated Statements of Stockholders' Equity (Deficit) and Comprehensive Loss**  
Inception (June 12, 1996) Through December 31, 2008

| Cumulative convertible preferred stock, series A | Cumulative convertible preferred stock, series B | Cumulative convertible preferred stock, series C | Common stock |            | Deficit Accumulated        |                             |                   | Treasury stockholders' equity (deficit) | Total   |           |
|--|--|--|--------------|------------|----------------------------|-----------------------------|-------------------|---|---------|-----------|
|  |  |  |              |            | Additional paid-up capital | Comprehensive income (loss) | Development stage |   |         |           |
| Shares   | Amount   | Shares   | Amount       | Shares     | Amount                     | capital                     | (loss)            | stage                                   | at cost | (deficit) |
|  |  |  |              |            |                            |                             | (37,840)          |   |         | (37,840)  |
|  |  | (70,109)   | (701)        | 14,021,860 | 14,022                     |                             | (13,321)          |   |         |           |
|  |  |  |              | 165,830    | 165                        | 53,326                      |                   |   |         | 53,491    |
|  |  |  |              | 6,640,737  | 6,676                      | 2,590,656                   |                   |   |         | 2,597,332 |
|  |  |  |              | 3,701,733  | 3,668                      | 3,989,181                   |                   |   |         | 3,992,849 |
|  |  |  |              | 235,291    | 235                        | 49,486                      |                   |   |         | 49,721    |
|  |  |  |              | 230,000    | 230                        | 206,569                     |                   |   |         | 206,799   |
|  |  |  |              |            |                            |                             | 156,735           |   |         | 156,735   |
|  |  |  |              |            |                            |                             | 286,033           |   |         | 286,033   |

|       |     |           |         |            |        |             |             |              |             |
|-------|-----|-----------|---------|------------|--------|-------------|-------------|--------------|-------------|
|       |     |           |         |            |        |             |             | (2,332,077)  | (2,332,077) |
| 473   | 4   | 200,000   | 2,000   | 42,491,708 | 42,492 | 32,556,963  |             | (28,481,146) | 4,120,313   |
|       |     |           |         |            |        | 72,800      |             |              | 72,800      |
| (473) | (4) |           |         | 236,500    | 236    | (232)       |             |              |             |
|       |     | (200,000) | (2,000) | 200,000    | 200    | 1,800       |             |              |             |
|       |     |           |         | 464,573    | 465    | (465)       |             |              |             |
|       |     |           |         | 23,832     | 23     | 27,330      |             |              | 27,353      |
|       |     |           |         |            |        | 86,375      |             |              | 86,375      |
|       |     |           |         | 10,417,624 | 10,419 | 15,616,031  |             |              | 15,626,450  |
|       |     |           |         |            |        | (1,366,774) |             |              | (1,366,774) |
|       |     |           |         |            |        | 524,922     |             |              | 524,922     |
|       |     |           |         |            |        | 34,747      |             | (34,747)     |             |
|       |     |           |         |            |        |             | (6,701,048) |              | (6,701,048) |
|       |     |           |         | 53,834,237 | 53,835 | 47,553,497  |             | (35,182,194) | (34,747)    |
|       |     |           |         |            |        |             |             |              | 12,390,391  |

See accompanying notes to consolidated financial statements.

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**ADVENTRX Pharmaceuticals, Inc. and Subsidiaries**  
 (A Development Stage Enterprise)  
**Consolidated Statements of Stockholders Equity (Deficit) and Comprehensive Loss**  
 Inception (June 12, 1996) Through December 31, 2008

|  | Cumulative convertible preferred stock, series A | Cumulative convertible preferred stock, series B | Cumulative convertible preferred stock, series C | Common stock |        | Additional paid-in capital | Accumulated other comprehensive income (loss) | Deficit accumulated during the development stage | Treasury stock, at cost | Total stockholders equity (deficit) | Comprehensive loss |
|--|--|--|--|--------------|--------|----------------------------|---|--|-------------------------|-------------------------------------|--------------------|
|  |  |  |  | Shares       | Amount |                            |   |  |                         |                                     |                    |
| Balance at January 1, 2008                               |  |  |  | 10,810,809   | 10,811 | (10,811)                   |   | (24,782,646)                                     |                         | (24,782,646)                        |                    |
| Change in value of convertible securities                |  |  |  |              |        | (1,722)                    |   |  |                         | (1,722)                             |                    |
| Shares issued in connection with exercise of warrants    |  |  |  | 149,613      | 149    | (149)                      |   |  |                         |                                     |                    |
| Shares issued for employee stock options                 |  |  |  | 2,258,703    | 2,259  | 3,071,179                  |   |  |                         | 3,073,438                           |                    |
| Shares issued to employees                               |  |  |  | 185,000      | 185    | 144,815                    |   |  |                         | 145,000                             |                    |
| Shares issued to employee stock options                  |  |  |  |              |        | 994,874                    |   |  |                         | 994,874                             |                    |
| Shares issued to employee stock options                  |  |  |  |              |        | 93,549                     |   |  |                         | 93,549                              |                    |
| Shares issued in stock to employees at December 31, 2008 |  |  |  | 125,000      | 125    | 258,375                    |   |  |                         | 258,500                             |                    |
| Balance at December 31, 2008                             |  |  |  | 67,363,362   | 67,364 | 52,105,329                 | (1,722)                                       | (59,964,840)                                     | (34,747)                | (7,828,616)                         | \$ (24,735,594)    |
| Balance at December 31, 2007                             |  |  |  |              |        |                            |   | (29,331,773)                                     |                         | (29,331,773)                        | \$ (29,331,773)    |
| Change in value of convertible securities                |  |  |  |              |        |                            | (368)   |  |                         | (368)                               |                    |

|   |            |        |             |         |              |              |          |
|---|------------|--------|-------------|---------|--------------|--------------|----------|
| of change<br>value of<br>le- for-<br>urities                      |            |        |             |         |              |              |          |
| s exercise<br>ants  | 420,161    | 420    | (420)       |         |              |              |          |
| e of<br>s, net of<br>g costs<br>tion of                           | 5,103,746  | 5,104  | 7,686,486   |         |              | 7,691,590    |          |
| ceuticals.  | 2,099,990  | 2,100  | 10,161,852  |         |              | 10,163,952   |          |
| common<br>\$2.75 per<br>et of<br>g costs<br>e of stock<br>erance  | 14,545,000 | 14,545 | 37,055,666  |         |              | 37,070,211   |          |
| ent   | 60,145     | 60     | 196,614     |         |              | 196,674      |          |
| e of stock  | 92,500     | 93     | 125,658     |         |              | 125,751      |          |
| e of<br>ed stock to<br>mployees                                   | 15,000     | 15     | 68,635      |         |              | 68,650       |          |
| e of stock<br>to<br>ees   |            |        | 1,697,452   |         |              | 1,697,452    |          |
| e of stock<br>to<br>mployee<br>ation of<br>y stock                | (23,165)   | (23)   | (34,724)    |         | 34,747       |              |          |
| es at<br>er 31,<br>s restated                                     | 89,676,739 | 89,678 | 109,166,773 | (2,090) | (89,296,613) | 19,957,748   | \$ (29,3 |
| ative-effect<br>ent of<br>g FASB<br>osition<br>F 00-19-2<br>te 3) |            |        | 18,116,751  |         | 12,239,688   | 30,356,439   |          |
| s<br>of change<br>value of  |            |        |             | 4,792   | (22,142,040) | (22,142,040) | \$ (22,1 |

|                                      |            |        |               |           |              |    |                  |              |                    |
|--------------------------------------|------------|--------|---------------|-----------|--------------|----|------------------|--------------|--------------------|
| le- for securities                   |            |        |               |           |              |    |                  |              |                    |
| e of stock                           | 575,833    | 576    | 441,040       |           |              |    |                  | 441,616      |                    |
| e of stock to fees                   |            |        | 2,414,077     |           |              |    |                  | 2,414,077    |                    |
| e of stock to employee               |            |        | 1,908         |           |              |    |                  | 1,908        |                    |
| es at per 31,                        | 90,252,572 | 90,254 | 130,140,549   | 2,702     | (99,198,965) |    |                  | 31,034,540   | \$ (22,1           |
| s of change value of le-for -sale es |            |        |               |           | (26,647,493) |    |                  | (26,647,493) | \$ (26,6           |
| e of stock                           |            |        |               |           |              |    |                  |              |                    |
| e of stock to fees                   |            |        | 1,605,908     |           |              |    |                  | 1,605,908    |                    |
| e of stock to employee               |            |        | 4,982         |           |              |    |                  | 4,982        |                    |
| es at per 31,                        | \$         | \$     | \$ 90,252,572 | \$ 90,254 | 131,751,439  | \$ | \$ (125,846,458) | \$           | 5,995,235 \$ (26,6 |

See accompanying notes to consolidated financial statements.

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

|   | <b>Years Ended December 31,</b> |                 | <b>Inception<br/>(June 12, 1996)<br/>Through<br/>December 31,<br/>2008<br/>(as restated)</b> |
|---|---------------------------------|-----------------|--|
|   | <b>2008</b>                     | <b>2007</b>     |  |
| <b>Cash flows from operating activities:</b>                                |                                 |                 |  |
| Net loss  | \$ (26,647,493)                 | \$ (22,142,040) | \$ (138,581,749)   |
| Adjustments to reconcile net loss to net cash used in operating activities: |                                 |                 |  |
| Depreciation and amortization   | 168,039                         | 197,783         | 10,348,071   |
| Gain on disposal of fixed assets  | (3,598)                         |                 | (3,598)  |
| Loss on fair value of warrants  |                                 |                 | 12,239,688   |
| Amortization of debt discount   |                                 |                 | 450,000  |
| Forgiveness of employee receivable  |                                 |                 | 30,036   |
| Impairment loss write-off of goodwill                                       |                                 |                 | 5,702,130  |
| Expenses related to employee stock options and restricted stock issued      | 1,605,907                       | 2,414,077       | 7,852,562  |
| Expenses related to options issued to non-employees                         | 4,983                           | 1,908           | 204,664  |
| Expenses paid by issuance of common stock                                   |                                 | 78,333          | 1,341,372  |
| 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  |
| Equity in loss of investee  |                                 |                 | 178,936  |
| In-process research and development   |                                 |                 | 10,422,130   |
| Write-off of license agreement  |                                 |                 | 152,866  |
| Write-off assets available-for-sale   |                                 |                 | 108,000  |
| Cumulative effect of change in accounting principle                         |                                 |                 | 25,821   |
| Accretion of discount   | (208,103)                       | (1,041,750)     | (1,249,853)  |
| Accretion of discount on investments in securities                          |                                 |                 | (354,641)  |
| Changes in assets and liabilities, net of effect of acquisitions:           |                                 |                 |  |
| Increase in prepaid and other assets  | 85,723                          | (174,388)       | (907,671)  |
| Increase in accounts payable and accrued liabilities                        | 1,221,208                       | 1,044,291       | 4,890,731  |
| Decrease in long-term liabilities   | (14,270)                        | (21,404)        |  |
| Net cash used in operating activities                                       | (23,787,604)                    | (19,643,190)    | (85,822,647)   |
| <b>Cash flows from investing activities:</b>                                |                                 |                 |  |
| Proceeds from sales and maturities of short-term investments                | 33,243,602                      | 59,240,000      | 112,788,378  |
| Purchases of short-term investments   | (14,355,784)                    | (51,104,469)    | (111,183,884)  |

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|  |          |           |             |
|--|----------|-----------|-------------|
| Purchases of property and equipment          | (64,955) | (127,259) | (1,030,354) |
| Proceeds from sale of property and equipment | 33,906   |           | 33,906      |
| Purchase of certificate of deposit           |          |           | (1,016,330) |

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

|   | Years Ended December 31, |               | Inception<br>(June 12,<br>1996)<br>Through<br>December 31,<br>2008<br>(as restated) |
|---|--------------------------|---------------|---|
|   | 2008                     | 2007          |   |
| Maturity of certificate of deposit                              |                          |               | 1,016,330   |
| Cash paid for acquisitions, net of cash acquired                |                          |               | 32,395  |
| Payment on obligation under license agreement                   |                          |               | (106,250)   |
| 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 investing activities                       | 18,856,769               | 8,008,272     | 1,025,234   |
| <b>Cash flows from financing activities:</b>                    |                          |               |   |
| Proceeds from sale of common stock                              |                          |               | 84,151,342  |
| Proceeds from exercise of stock options                         |                          | 441,616       | 712,367   |
| Proceeds from sale or exercise of warrants                      |                          |               | 11,382,894  |
| Proceeds from sale of preferred stock                           |                          |               | 4,200,993   |
| Repurchase of warrants  |                          |               | (55,279)  |
| Payments for financing and offering costs                       |                          |               | (6,483,809)   |
| Payments on 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                       |                          | 441,616       | 94,647,317  |
| Net (decrease) increase in cash and cash equivalents            | (4,930,835)              | (11,193,302)  | 9,849,904   |
| Cash and cash equivalents at beginning of period                | 14,780,739               | 25,974,041    |   |
| Cash and cash equivalents at end of period                      | \$ 9,849,904             | \$ 14,780,739 | \$ 9,849,904  |

See accompanying notes to consolidated financial statements.

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**ADVENTRX Pharmaceuticals, Inc. and Subsidiaries**  
(A Development Stage Enterprise)  
**Notes to Consolidated Financial Statements**  
**December 31, 2008**

**(1) Description of Business**

ADVENTRX Pharmaceuticals, Inc., a Delaware corporation ( ADVENTRX, we or the Company ), is a development-stage biopharmaceutical company whose fundamental business is focused on in-licensing, developing and commercializing proprietary product candidates for the treatment of cancer. Through our acquisition of SD Pharmaceuticals, Inc. ( SDP ) in 2006 and our license agreements with the University of Southern California, we have rights to product candidates in varying stages of development. We have not yet marketed or sold any products or generated any significant revenue.

In October 2000, we merged our wholly-owned subsidiary, Biokeys Acquisition Corp., with and into Biokeys, Inc. and changed our name to Biokeys Pharmaceuticals, Inc. In May 2003, we merged Biokeys Inc., our wholly-owned subsidiary, with and into us and changed our name to ADVENTRX Pharmaceuticals, Inc. The merger had no effect on our financial statements. In July 2004, we formed a wholly-owned subsidiary, ADVENTRX (Europe) Ltd., in the United Kingdom primarily to facilitate conducting clinical trials in the European Union. In April 2006, we acquired all of the outstanding capital stock of SDP through a merger with our newly created wholly-owned subsidiary, Speed Acquisition, Inc. (the Merger Sub ) and changed the name of the Merger Sub to SD Pharmaceuticals, Inc. Currently, we are focused primarily on evaluating strategic options, including the sale or exclusive license of one or more of our product candidate programs, a strategic business merger and other similar transactions. We implemented restructuring and cost-cutting measures in October 2008, January 2009 and March 2009 and will eliminate all but a select, small number of personnel and discontinue substantially all of our development activities and fundamental business operations to provide additional time to consummate a strategic transaction or otherwise obtain financing.

**(2) Going Concern**

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. Going concern contemplates the realization of assets and the satisfaction of liabilities in the normal course of business over a reasonable length of time. However, as a result of the Company s continued losses and current cash and financing position, such realization of assets or satisfaction of liabilities, without substantial adjustments is uncertain. The future of the Company is dependent upon its ability to obtain additional funding. Management is evaluating various strategic options, including the sale or exclusive license of one or more of the Company s product candidate programs, a strategic business merger and other similar transactions, certain of which may result in a change of control of the Company. There can be no assurances that the Company will be successful in consummating a strategic transaction on a timely basis or at all. The Company likely will not be able to continue as a going concern, unless, as part of a strategic transaction or otherwise, it raises adequate capital. The Company will eliminate all but a select, small number of personnel and discontinue substantially all of its development activities and fundamental business operations and its ability to further curtail expenses to provide additional time to consummate a strategic transaction or otherwise obtain financing is limited. Given this uncertainty, there is significant doubt as to the Company s ability to continue as a going concern.

The Company s consolidated financial statements for the year ended December 31, 2008 do not include any adjustments related to the recovery and classification of recorded assets, or the amounts and classification of liabilities that might be necessary in the event the Company cannot continue as a going concern.

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**ADVENTRX Pharmaceuticals, Inc. and Subsidiaries**  
(A Development Stage Enterprise)  
**Notes to Consolidated Financial Statements (continued)**  
**December 31, 2008**

**(3) Summary of Significant Accounting Policies**

***Basis of Presentation***

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

***Use of Estimates***

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ( U.S. ) 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.

***Change in Accounting Principle for Registration Payment Arrangements and Correction of Error***

On January 1, 2007, we adopted the provisions of the Financial Accounting Standards Board ( FASB ) Staff Position on No. EITF 00-19-2, "Accounting for Registration Payment Arrangements"( FSP EITF 00-19-2 ). In December 2007, management determined that it was not probable that we would have any payment obligation under the July 2005 Registration Payment Arrangement; therefore, no accrual for contingent obligation was required under the provisions of FSP EITF 00-19-2. Accordingly, the warrant liability account was eliminated and the comparative condensed consolidated financial statements of the prior periods and as of December 31, 2006 were adjusted to apply the new method retrospectively.

The Company accounted for FSP EITF 00-19-2 appropriately by eliminating the warrant liability as of December 31, 2007, but upon further review in 2008, management determined that it was not correct to adjust the prior period comparative financial statements. Accordingly, the Company has made the appropriate adjustments to reinstate the warrant liability accounting as originally recorded.

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**ADVENTRX Pharmaceuticals, Inc. and Subsidiaries**  
(A Development Stage Enterprise)  
**Notes to Consolidated Financial Statements**  
**December 31, 2008**

The following consolidated financial statement line items were affected by the correction of the error:

**Consolidated Statement of Operations**

*Inception (June 12, 1996) through December 31, 2008*

|                                | As<br>previously<br>reported | As restated    | Effect of change |
|--------------------------------|------------------------------|----------------|------------------|
| Loss on fair value of warrants | \$                           | \$(12,239,688) | \$(12,239,688)   |

**Condensed Consolidated Statements of Operations (Unaudited)**

|  | March 31, 2007            |                 |                     | Inception (June 12, 1996) through:<br>June 30, 2007 |                 |                     | September 30, 2007        |                 |                     |
|--|---------------------------|-----------------|---------------------|---|-----------------|---------------------|---------------------------|-----------------|---------------------|
|  | As previously<br>reported | As restated     | Effect of<br>change | As previously<br>reported                           | As restated     | Effect of<br>change | As previously<br>reported | As restated     | Effect of<br>change |
|  | \$                        | \$(12,239,688)  | \$(12,239,688)      | \$  | \$ (12,239,688) | \$(12,239,688)      | \$                        | \$ (12,239,688) | \$(12,239,688)      |
|  | (82,650,521)              | (94,890,209)    | (12,239,688)        | (88,373,349)  | (100,613,037)   | (12,239,688)        | (94,287,473)              | (106,527,161)   | (12,239,688)        |
|  | (82,676,342)              | (94,916,030)    | (12,239,688)        | (88,399,170)  | (100,638,858)   | (12,239,688)        | (94,313,294)              | (106,552,982)   | (12,239,688)        |
|  | (83,297,582)              | (95,537,270)    | (12,239,688)        | (89,020,410)  | (101,260,098)   | (12,239,688)        | (94,934,534)              | (107,174,222)   | (12,239,688)        |
|  | March 31, 2008            |                 |                     | Inception (June 12, 1996) through:<br>June 30, 2008 |                 |                     | September 30, 2008        |                 |                     |
|  | As previously<br>reported | As restated     | Effect of<br>change | As previously<br>reported                           | As restated     | Effect of<br>change | As previously<br>reported | As restated     | Effect of<br>change |
|  | \$                        | \$ (12,239,688) | \$(12,239,688)      | \$  | \$ (12,239,688) | \$(12,239,688)      | \$                        | \$ (12,239,688) | \$(12,239,688)      |
|  | (105,601,819)             | (117,841,507)   | (12,239,688)        | (112,027,349)                                       | (124,267,037)   | (12,239,688)        | (118,804,212)             | (131,043,900)   | (12,239,688)        |
|  | (105,627,640)             | (117,867,328)   | (12,239,688)        | (112,053,170)                                       | (124,292,858)   | (12,239,688)        | (118,830,033)             | (131,069,721)   | (12,239,688)        |

(106,248,880) (118,488,568) (12,239,688) (112,674,410) (124,914,098) (12,239,688) (119,451,273) (131,690,961) (

**Consolidated Statements of Stockholders Equity (Deficit)**

|  | <b>As previously<br/>reported</b> | <b>As restated</b> | <b>Effect of<br/>change</b> |
|--|-----------------------------------|--------------------|-----------------------------|
| <i>For the year ended December 31, 2005:</i>                           |                                   |                    |                             |
| Net loss   | \$ (13,202,986)                   | \$ (24,782,646)    | \$ (11,579,660)             |
| Additional paid-in-capital   | 70,222,080                        | 52,105,329         | (18,116,751)                |
| Deficit accumulated during the development stage                       | (48,385,180)                      | (59,964,840)       | (11,579,660)                |
| Total stockholders equity  | 21,867,795                        | (7,828,616)        | (29,696,411)                |
| <i>For the year ended December 31, 2006:</i>                           |                                   |                    |                             |
| Net loss   | (28,671,745)                      | (29,331,773)       | (660,028)                   |
| Additional paid-in-capital   | 127,283,254                       | 109,166,773        | (18,116,751)                |
| Deficit accumulated during the development stage                       | (77,056,925)                      | (89,296,613)       | (12,239,688)                |
| Total stockholders equity  | 50,314,187                        | 19,957,748         | (30,356,439)                |
| <i>At December 31, 2007:</i>   |                                   |                    |                             |
| Cumulative-effect of adopting FASB Staff Position<br>No. EITF 00-19-2: |                                   |                    |                             |
| Additional paid-in-capital   |                                   | 18,116,751         | 18,116,751                  |
| Deficit accumulated during the development stage                       |                                   | 12,239,688         | 12,239,688                  |
| Total stockholders equity  |                                   | 30,356,439         | 30,356,439                  |

**Consolidated Statement of Cash Flows**

*Inception (June 12, 1996) through December 31, 2008*

|                                |      |               |               |
|--------------------------------|------|---------------|---------------|
| Loss on fair value of warrants | \$   | \$ 12,239,688 | \$ 12,239,688 |
|                                | F-22 |               |               |

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Table of Contents**ADVENTRX Pharmaceuticals, Inc. and Subsidiaries**

(A Development Stage Enterprise)

**Notes to Consolidated Financial Statements****December 31, 2008****Condensed Consolidated Statements of Cash Flow (Unaudited)**

| March 31, 2007         |                |                  | Inception (June 12, 1996) through:<br>June 30, 2007 |                 |                  | September 30, 2007     |                 |                  |
|------------------------|----------------|------------------|---|-----------------|------------------|------------------------|-----------------|------------------|
| As previously reported |                | Effect of change | As previously reported                              |                 | Effect of change | As previously reported |                 | Effect of change |
| As reported            | As restated    |                  | As reported   | As restated     |                  | As reported            | As restated     |                  |
| \$(82,676,342)         | \$(94,916,030) | \$(12,239,688)   | \$(88,399,170)                                      | \$(100,638,858) | \$(12,239,688)   | \$(94,313,294)         | \$(106,552,982) | \$(12,239,688)   |
|                        | 12,239,688     | 12,239,688       |   | 12,239,688      | 12,239,688       |                        | 12,239,688      | 12,239,688       |

| March 31, 2008         |                 |                  | Inception (June 12, 1996) through:<br>June 30, 2008 |                 |                  | September 30, 2008     |                 |                  |
|------------------------|-----------------|------------------|---|-----------------|------------------|------------------------|-----------------|------------------|
| As previously reported |                 | Effect of change | As previously reported                              |                 | Effect of change | As previously reported |                 | Effect of change |
| As reported            | As restated     |                  | As reported   | As restated     |                  | As reported            | As restated     |                  |
| \$(105,627,640)        | \$(117,867,328) | \$(12,239,688)   | \$(112,053,170)                                     | \$(124,292,858) | \$(12,239,688)   | \$(118,830,033)        | \$(131,069,721) | \$(12,239,688)   |
|                        | 12,239,688      | 12,239,688       |   | 12,239,688      | 12,239,688       |                        | 12,239,688      | 12,239,688       |

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**ADVENTRX Pharmaceuticals, Inc. and Subsidiaries**  
(A Development Stage Enterprise)  
**Notes to Consolidated Financial Statements (continued)**  
**December 31, 2008**

***Cash Equivalents***

Cash equivalents consist of highly liquid investments with original maturities of three months or less at the date of purchase.

***Short-term Investments***

We account for and report our investments in accordance with SFAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities*. Investments are comprised of marketable securities consisting primarily of certificates of deposit, federal, state and municipal government obligations and corporate bonds. Short-term investments are marketable securities with maturities of less than one year from the balance sheet date. All marketable securities are held in our name and primarily under the custodianship of two major financial institutions. Our policy is to protect the principal value of our investment portfolio and minimize principal risk.

Our marketable securities are classified as available-for-sale and stated at fair value, with net unrealized gains or losses recorded as a component of accumulated other comprehensive income (loss). The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity with all amortization and accretion included in interest income. Realized gains and losses on available-for-sale securities are included in other income (loss). The cost of securities sold is based on the specific identification method. Interest on securities classified as available-for-sale is included in interest income. Marketable securities are evaluated periodically for impairment. If it is determined that a decline of any investment is other than temporary, then the investment basis would be written down to fair value and the write-down would be included in earnings as a loss.

***Concentrations***

Financial instruments that potentially subject us to concentrations of credit risk consist principally of cash and cash equivalents and investment securities. We maintain our cash and cash equivalents in high-credit quality financial institutions. At times, such balances may exceed Federally insured limits. At December 31, 2008, our cash and cash equivalents were in excess of the Federal Deposit Insurance Corporation limit.

During 2008, approximately 12% or \$2.3 million of our total vendor payments were made to a manufacturer that provided process development and scale-up manufacturing services. If we were to lose this vendor, our progress in completing a New Drug Application ( NDA ) would be severely impeded. During 2007, approximately 14% or \$2.3 million of our total vendor payments were made to a contract research organization ( CRO ) that was assisting us in our clinical trial administration and data management.

***Fair Value of Financial Instruments***

At December 31, 2008, our financial instruments included cash and cash equivalents, accounts payable, accrued expenses and accrued compensation and payroll taxes. At December 31, 2007, our financial instruments also included short-term investments. The carrying amounts of cash and cash equivalents, accounts payable, accrued expenses and accrued compensation and payroll taxes approximate fair value due to the short-term maturities of these instruments. Our short-term investments in securities are carried at fair value based on quoted market prices.

***Property and Equipment***

Property and equipment are stated at cost. Depreciation and amortization are calculated using the straight-line method over the estimated useful lives of the assets. The costs of improvements that extend the lives of the assets are capitalized. Repairs and maintenance are expensed as incurred.

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**ADVENTRX Pharmaceuticals, Inc. and Subsidiaries**  
(A Development Stage Enterprise)  
**Notes to Consolidated Financial Statements (continued)**  
**December 31, 2008**

***Impairment of Long-Lived Assets***

Long-lived assets with finite lives are evaluated for impairment whenever events or changes in circumstances indicate that their carrying value may not be recoverable. If the evaluation indicates that intangibles or long-lived assets are not recoverable (i.e., carrying amount is less than the future projected undiscounted cash flows), their carrying amount would be reduced to fair value. Since inception through December 31, 2008, we recognized an impairment loss of the value of goodwill in the amount of \$5.7 million, which was recorded in the year ended December 31, 2001.

***Revenue Recognition***

We recognize revenue in accordance with the Securities and Exchange Commission's (SEC) Staff Accounting Bulletin Topic 13, *Revenue Recognition* (Topic 13), and Emerging Issues Task Force Issue (EITF) No. 00-21, *Revenue Arrangements with Multiple Deliverables*, or 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.

***Research and Development Expenses***

Research and development (R&D) expenses consist of expenses incurred in performing R&D activities, including salaries and benefits, facilities and other overhead expenses, bioequivalence and 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 U.S. Food and Drug Administration (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.

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Payments in connection with our bioequivalence and clinical trials are often made under contracts with multiple CROs that conduct and manage these 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 milestones. Expenses related to bioequivalence and 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 trials progress. Other incidental costs related to patient enrollment and treatment are accrued when reasonably certain. If the contracted amounts are modified (for instance, as a result of changes in the bioequivalence or 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 bioequivalence and 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 bioequivalence or 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 SFAS No. 141, *Business Combinations*, we immediately charge the costs associated with purchased 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 recorded approximately \$10.4 million of IPR&D expense related to our acquisition of SD Pharmaceuticals, Inc. in April 2006.

***Accounting for Stock-Based Compensation***

Effective January 1, 2006, we adopted the provisions of revised SFAS No. 123, *Share-Based Payment* ( SFAS 123(R) ), including the provisions of Staff Accounting Bulletins No. 107 ( SAB 107 ) and No. 110 ( SAB 110 ). Under SFAS 123(R), stock-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. We adopted the provisions of SFAS 123(R) using the modified prospective transition method. Accordingly, prior periods were not revised for comparative purposes.

On November 10, 2005, the FASB issued FASB Staff Position No. SFAS 123(R)-3, *Transition Election Related to Accounting for Tax Effects of Share-Based Payment Awards*. We elected to adopt the alternative transition method provided in SFAS 123(R). The alternative transition method included a simplified method to establish the beginning balance of the additional paid-in capital pool ( APIC pool ) related to the tax effects of employee stock-based compensation, which is available to absorb tax deficiencies recognized subsequent to the adoption of SFAS 123(R). The valuation provisions of SFAS 123(R) apply to new awards and to awards that are outstanding on the effective date, January 1, 2006, which are subsequently modified or cancelled. Prior to 2006, we accounted for stock-based compensation under the recognition and measurement principles of SFAS No. 123, *Accounting for Stock-Based Compensation* ( SFAS 123 ). Estimated compensation expense for awards outstanding at January 1, 2006 is recognized over the remaining service period using the compensation cost calculated for recognition purposes under SFAS 123. Stock-based compensation expense recognized in our consolidated statement of operations for the years ended December 31, 2008 and 2007 included compensation expense for stock-based payment awards granted prior to, but not yet vested as of, December 31, 2005 based on the grant date fair value estimated in accordance with the recognition provisions of SFAS 123 and stock-based payment awards granted subsequent to December 31, 2005 based



on the grant date fair value estimated in accordance with SFAS 123(R). For share awards granted during the year ended December 31, 2008 and 2007, expenses are amortized under the straight-line method. For share awards granted prior to 2006, expenses are amortized under the straight-line method prescribed by SFAS 123. As stock-based compensation expense recognized in the consolidated statement of operations for the years ended December 31, 2008 and 2007 is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures. SFAS 123(R) requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. In the year ended December 31, 2005, we accounted for forfeitures as they occurred in accordance with the recognition provisions of SFAS

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We account for stock-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 stock-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.

**Patent Costs**

Legal costs in connection with approved patents and patent applications are expensed as incurred and classified as selling, general and administrative expense in our consolidated statement of operations.

**Income Taxes**

We account for income taxes and the related accounts under the liability method. Deferred tax assets and liabilities are determined based on the differences between the financial statement carrying amounts and the income tax bases of assets and liabilities. A valuation allowance is applied against any net deferred tax asset if, based on available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. In July 2006, FASB issued Financial Interpretation No. 48, *Accounting for Uncertainty in Income Taxes—an Interpretation of FASB Statement 109* ( FIN 48 ), which 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. The provisions of FIN 48 were effective for us as of January 1, 2007, with the cumulative effect of the change in accounting principle recorded as an adjustment to opening retained earnings in the year of adoption. We adopted FIN 48 on January 1, 2007, which did not have a material impact on our consolidated results of operations or financial position. See Note 13, *Income Taxes* .

**Comprehensive Loss**

Comprehensive income or 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 marketable securities. We present comprehensive loss in our consolidated statements of stockholders' equity (deficit) and comprehensive loss.

**Computation of Net Loss per Common Share**

We calculate basic and diluted net loss per share in accordance with the SFAS No. 128, *Earnings Per Share* . Basic net loss per share was calculated by dividing the net loss by the weighted-average number of common shares outstanding during the period. Diluted net loss per share was calculated by dividing the net loss by the weighted-average number of common stock equivalents outstanding during the period. For purposes of this calculation, options and warrants are considered to be common stock equivalents and are only included in the calculation of diluted earnings per share when their effect is dilutive.

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

|          | <b>2008</b> | <b>2007</b> |
|----------|-------------|-------------|
| Warrants | 13,373,549  | 13,373,549  |
| Options  | 4,364,833   | 4,020,940   |

17,738,382

17,394,489

*Supplemental Cash Flow Information*

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|  | Years Ended December 31, |         | Inception<br>(June 12, 1996)<br>Through<br>December 31,<br>2008 |
|--|--------------------------|---------|---|
|  | 2008                     | 2007    | 2008  |
| Supplemental disclosures of cash flow information:                       |                          |         |   |
| Interest paid  | \$                       | \$      | \$ 179,090  |
| Income taxes paid  |                          |         |   |
| Supplemental disclosures of non-cash investing and financing activities: |                          |         |   |
| 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 conjunction with private placement         |                          |         | 1,137,456   |
| Acquisition of treasury stock in settlement of a claim                   |                          |         | 34,737  |
| Cancellation of treasury stock   |                          |         | (34,737)  |
| 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   |
| Unrealized (gain) loss on short-term investments                         | 2,702                    | (4,792) |   |

**New Accounting Pronouncements**

In December 2007, the FASB issued SFAS No. 141 (revised 2007) ( SFAS 141(R) ), Business Combinations, which replaces SFAS No. 141. SFAS 141(R) retains the purchase method of accounting for acquisitions, but requires a number of changes, including changes in the way assets and liabilities are recognized in purchase accounting. It also changes the recognition of assets acquired and liabilities assumed arising from contingencies, requires the capitalization of in-process research and development at fair value, and requires the expensing of acquisition-related costs as incurred. SFAS 141(R) is effective for financial statements issued for fiscal year 2009 and will apply prospectively to business combinations completed on or after January 1, 2009. We do not expect the adoption of SFAS 141(R) to have a material effect on our consolidated financial statements.

Effective January 1, 2008, we adopted SFAS No. 157, Fair Value Measurements ( SFAS 157 ). In February 2008, the FASB issued FASB Staff Position ( FSP ) No. SFAS 157-2, Effective Date of FASB Statement No. 157, which provides a one year deferral of the effective date of SFAS 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. As a result, we only partially adopted SFAS 157 as it relates to our financial assets and liabilities until we are required to apply this pronouncement to our non-financial assets and liabilities beginning with fiscal year 2009. The adoption of SFAS 157 did not have a material impact on our consolidated results of operations or financial condition.

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In February 2008, the FASB issued FSP No. 157-2, Effective Date of FASB Statement No. 157 ( FSP 157-2 ). FSP 157-2 delays, for one year, the effective date of SFAS 157 for all nonfinancial assets and liabilities, except those that are recognized or disclosed in the consolidated financial statements on at least an annual basis.

In May 2008, the FASB issued SFAS No. 162, The Hierarchy of Generally Accepted Accounting Principles. SFAS No. 162 is intended to improve financial reporting by identifying a consistent hierarchy for selecting accounting principles to be used in preparing financial statements that are prepared in conformance with accounting principles generally accepted in the United States of America. Unlike Statement on Auditing Standards (SAS) No. 69, The Meaning of Present Fairly in Conformity With GAAP, SFAS No. 162 is directed to the entity rather than the auditor. SFAS No. 162 is effective 60 days following the SEC's approval of the Public Company Accounting Oversight Board ( PCAOB ) amendments to AU Section 411, The Meaning of Present Fairly in Conformity with GAAP, and is not expected to have any impact on the Company's consolidated results of operations, financial condition or liquidity.

In October 2008, the FASB issued FSP No. SFAS 157-3 Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active ( FSP SFAS 157-3 ). FSP SFAS 157-3 clarifies the application of SFAS No. 157, in a market that is not active and provides an example to illustrate key considerations in determining the fair value of a financial asset when the market for that financial asset is not active. FSP SFAS 157-3 is effective upon issuance, including prior periods for which financial statements have not been issued. The adoption of FSP SFAS 157-3 had no impact on our consolidated results of operations, financial position or cash flows.

SFAS 157 was effective for the Company beginning January 1, 2008 for financial assets and liabilities recognized or disclosed in the Company's consolidated financial statements. SFAS 157 defines fair value, establishes a framework for measuring fair value under U.S. GAAP and enhances disclosures about fair value measurements. Fair value is defined under SFAS 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 SFAS 157 must maximize the use of observable inputs and minimize the use of unobservable inputs. SFAS 157 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.

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The following table represents our fair value hierarchy for our financial assets (which consisted solely of cash equivalents) measured at fair value based on quoted market prices on a recurring basis as of December 31, 2008:

|                    | <b>Level 1</b> | <b>Level 2</b> | <b>Level 3</b> | <b>Total</b> |
|--------------------|----------------|----------------|----------------|--------------|
| Money market funds | \$ 9,849,904   | \$             | \$             | \$ 9,849,904 |
| Total              | \$ 9,849,904   | \$             | \$             | \$ 9,849,904 |

Effective January 1, 2008, we adopted SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities" (SFAS 159). SFAS 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 SFAS 159, we did not elect the fair value option for any of our financial assets or financial liabilities.

**(4) Investments in Securities**

The following table summarizes our investments in securities, all of which are classified as available-for-sale:

|                                 | <b>Cost</b>  | <b>2008<br/>Gross<br/>Unrealized<br/>Gains<br/>(Losses)</b> | <b>Fair Value</b> |
|---------------------------------|--------------|---|-------------------|
| Cash and cash equivalents:      |              |   |                   |
| Cash                            | \$ 9,849,904 | \$  | \$ 9,849,904      |
| Total cash and cash equivalents | \$ 9,849,904 | \$  | \$ 9,849,904      |

|                              | <b>Cost</b>   | <b>2007<br/>Gross<br/>Unrealized<br/>Gains (Losses)</b> | <b>Fair Value</b> |
|------------------------------|---------------|---|-------------------|
| Short-term investments:      |               |   |                   |
| Commercial paper             | \$ 9,494,050  | \$ 2,420  | \$ 9,496,470      |
| Government debt securities   | 7,438,669     | (1,617)   | 7,437,052         |
| Corporate bonds              | 1,748,504     | 391   | 1,748,895         |
| Total short-term investments | \$ 18,681,223 | \$ 1,194  | \$ 18,682,417     |

**(5) Property and Equipment**

Property and equipment at December 31, 2008 and 2007 were as follows:

|  | <b>Useful Lives</b> | <b>2008</b> | <b>2007</b> |
|--|---------------------|-------------|-------------|
| Office furniture, computer and lab equipment | 3 - 5 years         | \$ 720,257  | \$ 754,990  |

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|  |         |            |            |
|--|---------|------------|------------|
| Computer software                              | 3 years | 103,306    | 122,162    |
|  |         | 823,563    | 877,152    |
| Less accumulated depreciation and amortization |         | (624,511)  | (544,708)  |
| Property and equipment, net                    |         | \$ 199,052 | \$ 332,444 |

Depreciation and amortization expense was \$168,039 and \$197,783 for the years ended December 31, 2008 and 2007, respectively.

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**(6) Accrued Liabilities**

Accrued liabilities at December 31, 2008 and 2007 were as follows:

|                                      | <b>2008</b>  | <b>2007</b>  |
|--------------------------------------|--------------|--------------|
| Accrued contracts and study expenses | \$ 1,620,988 | \$ 1,953,472 |
| Other accrued liabilities            | 434,172      | 326,428      |
| Deferred rent                        | 22,028       | 38,010       |
| Accrued liabilities                  | \$ 2,077,188 | \$ 2,317,910 |

**(7) Capital Stock and Warrants****Common Stock**

During 2008, we issued no new additional common stock.

During 2007, we issued an aggregate of 575,833 shares of our common stock in connection with the exercises of employee stock options at a weighted average price of \$0.77 per share for cash in the aggregate amount of approximately \$442,000.

**Warrants**

In July 2005, we issued warrants to purchase 10,810,809 shares of common stock at an exercise price of \$2.26 per share in connection with the sale of 10,810,809 shares of common stock in July 2005. See Note 11, *Registration Payment Arrangement*, for a detailed discussion.

At December 31, 2008, outstanding warrants to purchase shares of common stock are as follows:

| <b>Warrants</b> | <b>Exercise Price</b> | <b>Expiration Date</b> |
|-----------------|-----------------------|------------------------|
| 1,872,693*      | \$ 1.98               | Apr-09                 |
| 117,000*        | \$ 2.38               | Apr-09                 |
| 573,047*        | \$ 1.98               | Jun-09                 |
| 10,810,809      | \$ 2.26               | Jul-12                 |
| 13,373,549      |                       |                        |

\* These warrants contain price-based anti-dilution protection. Among other things, this protection lowers the exercise price of these warrants in the event we issue common stock at a price

per share that is less than the warrants then-effective exercise price, thereby allowing the warrant holders to receive the same number of shares of our common stock for less consideration.

**(8) Equity Incentive Plans**

At December 31, 2008, we had the 2005 Equity Incentive Plan (the 2005 Plan ), the 2005 Employee Stock Purchase Plan (the Purchase Plan ), and the 2008 Omnibus Incentive Plan (the 2008 Plan ) which are described below. The stock-based compensation expense from all stock-based awards that has been charged to our consolidated statements of operations in the years ended December 31, 2008 and 2007 was comprised of the following:

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|   | <b>Years Ended December 31.</b> |              |
|---|---------------------------------|--------------|
|   | <b>2008</b>                     | <b>2007</b>  |
| Selling, general and administrative expense                             | \$ 885,427                      | \$ 1,440,081 |
| Research and development expense  | 725,464                         | 1,054,237    |
| Stock-based compensation expense before taxes                           | 1,610,891                       | 2,494,318    |
| Related income tax benefits   |                                 |              |
| Stock-based compensation expense  | \$ 1,610,891                    | \$ 2,494,318 |
| Net stock-based compensation expense per common share basic and diluted | \$ 0.02                         | \$ 0.03      |
| Stock-based compensation expense from:                                  |                                 |              |
| Stock options   | \$ 1,610,890                    | \$ 2,415,985 |
| Share grant   |                                 | 78,333       |
| Restricted stock awards   |                                 |              |
|   | \$ 1,610,890                    | \$ 2,494,318 |

Since we accounted for employee stock-based awards using the recognition method under the provisions of SFAS 123 prior to 2006, the adoption of SFAS 123(R) did not have a material impact on our consolidated results of operations. Since we have net operating losses carry forward as of December 31, 2008, no excess tax benefits for the tax deductions related to stock-based awards were recognized in the consolidated statement of operations. Additionally, no incremental tax benefits were recognized from stock options exercised in the years ended December 31, 2008 and 2007 that would have resulted in a reclassification to reduce net cash provided by operating activities with an offsetting increase in net cash provided by financing activities.

**2005 Equity Incentive Plan and 2008 Omnibus Incentive Plan**

The 2005 and the 2008 Plans, which are stockholder-approved, are intended to encourage ownership of shares of common stock by our directors, officers, employees, consultants and advisors and to provide additional incentive for them to promote the success of our business through the grant of stock-based awards. Both plans provide for the grant of incentive and non-statutory stock options as well as share appreciation rights, restricted shares, restricted share units, performance units, shares and other stock-based awards. Stock-based awards are subject to terms and conditions established by the Board of Directors or the Compensation Committee of our Board of Directors. Our policy is to issue new common shares upon the exercise of stock options, conversion of share units or issuance of shares or restricted stock.

Since the 2008 Plan was approved by the Company's stockholders in May 2008, no awards have been or will be granted under the 2005 Plan. As of December 31, 2008, the maximum aggregate number of shares of common stock which may be issued pursuant to or subject to the foregoing types of awards granted under the 2008 Plan is 13,097,500 shares. Any shares of common stock that are subject to options or stock appreciation rights granted under the 2008 Plan shall be counted against this limit as one (1) share of common stock for every one (1) share of common stock granted. Any shares of common stock that are subject to awards other than options or stock appreciation rights

granted under the 2008 Plan shall be counted against this limit as 1.2 shares of common stock for every one (1) share of common stock granted. If any shares of common stock subject to an award under the 2008 Plan or the 2005 Plan are forfeited, expire or are settled for cash pursuant to the terms of an award, the shares subject to the award may be used again for awards under the 2008 Plan to the extent of the forfeiture, expiration or settlement. The shares of common stock will be added back as one (1) share for every share of common stock if the shares were subject to options or stock appreciation rights granted under the 2008 Plan or under the 2005 Plan, and as 1.2 shares for every share of common stock if the shares were subject to awards other than options or stock appreciation rights granted under the 2008 Plan or the 2005 Plan. The following shares of common stock will not be added to the shares issuable under the 2008 Plan: (i) shares tendered by the participant or withheld by the Company in payment of the purchase price of an option, (ii) shares tendered by the participant or withheld by the Company to satisfy tax withholding with respect to an award, and (iii) shares subject to a stock appreciation right that are not issued in connection with the stock settlement of the stock appreciation right on exercise. Shares of common stock under awards made in substitution or exchange for awards granted by a company acquired by the Company, or with which the Company combines, do not reduce the maximum number of shares that may be issued under the 2008 Plan. In addition, if a company acquired by the Company, or with which the Company combines, has shares remaining available under a plan approved by its stockholders, the available shares (adjusted to reflect the exchange or valuation ratio in the acquisition or combination) may be used for awards under the 2008 Plan and will not reduce the maximum

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number of shares of common stock that may be issued under the 2008 Plan; provided, however that awards using such available shares shall not be made after the date awards or grants could have been made under the pre-existing plan, absent the acquisition or combination, and shall only be made to individuals who were not our employees or directors prior to the acquisition or combination.

Under the 2008 Plan, the purchase price of shares of common stock covered by a stock option cannot be less than 100% of the fair market value of the common stock on the date the option is granted. Fair market value of the common stock is generally equal to the closing price for the common stock on the principal securities exchange on which the common stock is traded on the date the option is granted (or if there was no closing price on that date, on the last preceding date on which a closing price is reported). Option awards generally have ten-year contractual terms and vest over four years based on continuous service; however, the 2005 Plan and the 2008 Plan allow for other vesting periods and we have granted employees options where the requisite service period is three years and we grant our directors options where the requisite service period is one year.

We cancelled 2,536,607 and 341,063 options in the years ended December 31, 2008 and 2007, respectively, related to terminated employees and board directors. The shares underlying such options were returned to and are available for re-issuance under the 2008 Plan pursuant to the terms described above.

The only types of awards granted under the 2005 Plan and the 2008 Plan in the years ended December 31, 2008 and 2007 were stock options. A summary of all of our option activity as of December 31, 2008 and 2007 and of changes in options outstanding under the plans during the years then ended are as follows:

|  | <b>Shares</b> | <b>Weighted-<br/>Average<br/>Exercise<br/>Price</b> | <b>Weighted-<br/>Average<br/>Contractual<br/>Years</b> | <b>Aggregate<br/>Intrinsic<br/>Value</b> |
|--|---------------|---|--|--|
| Options outstanding at December 31, 2006 | 3,767,103     | \$ 2.39   |  |  |
| Granted                                  | 1,170,733     | \$ 2.63   |  |  |
| Exercised                                | (575,833)     | \$ 0.77   |  |  |
| Canceled/forfeited/expired               | (341,063)     | \$ 3.52   |  |  |
| Options outstanding at December 31, 2007 | 4,020,940     | \$ 2.60   | 6.90   |  |
| Granted                                  | 2,880,500     | \$ 0.49   |  |  |
| Exercised                                |               |   |  |  |
| Cancelled/forfeited/expired              | (2,536,607)   | \$ 1.62   |  |  |
| Options outstanding at December 31, 2008 | 4,364,833     | \$ 1.77   | 7.09   |  |
| Options exercisable at December 31, 2008 | 2,126,952     | \$ 2.67   | 5.82   |  |
| Options exercisable at December 31, 2007 | 2,153,968     | \$ 2.29   | 5.30   |  |

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The weighted-average grant-date fair value of options granted during the years ended December 31, 2008 and 2007 was \$0.49 and \$2.63, respectively. As of December 31, 2008, there was approximately \$2.0 million of unamortized compensation cost related to unvested stock option awards, which is expected to be recognized over a weighted-average remaining period of approximately 3.0 years.

There were no options exercised during the year ended December 31, 2008. The total intrinsic value of options exercised during the year ended December 31, 2007 was approximately \$865,000, based on the difference in the market price on the dates of exercise and the applicable option exercise price. During the year ended December 31, 2007, we received \$442,000 in cash from exercised options under all stock-based payment arrangements. No tax benefit was realized for the tax deductions from option exercises of the stock-based payment arrangements in the years ended December 31, 2008 and 2007.

Our determination of fair value is affected by our stock price as well as a number of assumptions that require judgment. The fair value of each option award is estimated on the date of grant using the Black-Scholes option-valuation model. The assumptions used in the Black-Scholes option-valuation model for option grants during the years ended December 31, 2008 and 2007 are as follows:

|                             | <b>Years Ended December 31,</b> |      |             |      |
|-----------------------------|---------------------------------|------|-------------|------|
|                             | <b>2008</b>                     |      | <b>2007</b> |      |
| Risk-free interest rate     | 2.75                            | 3.3% | 4.6         | 4.8% |
| Dividend yield              |                                 | 0.0% |             | 0.0% |
| Expected volatility         | 125                             | 149% | 137%        | 138% |
| Weighted-average volatility |                                 | 146% |             | 138% |
| Expected term (in years)    | 6.2 years                       |      | 6.1 years   |      |

The risk-free interest rate assumption is based on the U.S. Treasury yield for a period consistent with the expected term of the option in effect at the time of the grant. We have not paid any dividends on common stock since our inception and do not anticipate paying dividends on our common stock in the foreseeable future. The expected option term is computed using the simplified method as permitted under the provisions of SAB 107 and SAB 110. The expected volatility is based on the historical volatility of our common stock and other factors. In 2006, we began using an alternative historical volatility based on the daily close price of our common stock, which we determined was a better indicator of volatility than the method used in the prior years. The effect of this change on stock-based compensation was immaterial.

In 2007, we granted 15,000 options to consultants. No options were granted to consultants in 2008. These option grants were valued as of the date at which the consultants' performance is complete using the Black-Scholes pricing model. The assumptions used in the Black-Scholes model for non-employee option grants for the years ended December 31, 2008 and 2007 are as follows:

|                             | <b>2008</b>             |           | <b>2007</b> |           |
|-----------------------------|-------------------------|-----------|-------------|-----------|
|                             | Risk-free interest rate | 3.3       | 3.7%        | 4.0       |
| Dividend yield              |                         | 0.0%      |             | 0.0%      |
| Expected volatility         |                         | 147%      | 125%        | 147%      |
| Contractual term (in years) | 6.5                     | 7.3 years | 2.5         | 8.3 years |

We recognized approximately \$5,000 and \$2,000 in stock-based compensation expense associated with non-employee options in the years ended December 31, 2008 and 2007, respectively.

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The following table summarizes information concerning our outstanding and exercisable stock options as of December 31, 2008:

|                         | Options Outstanding               |  |   | Options Exercisable               |   |
|-------------------------|-----------------------------------|--|---|-----------------------------------|---|
|                         | Number<br>Outstanding<br>in 000 s | Weighted-<br>Average<br>Remaining<br>Contractual<br>Life | Weighted-<br>Average<br>Exercise<br>Price | Number<br>Exercisable<br>in 000 s | Weighted-<br>Average<br>Exercise<br>Price |
| Range of Exercise Price |                                   |  |   |                                   |   |
| \$0.19 to \$0.54        | 2,196                             | 8.63   | 0.46                                      | 338                               | 0.44                                      |
| \$2.28 to \$2.75        | 1,442                             | 5.65   | 2.52                                      | 1,171                             | 2.50                                      |
| \$2.86 to \$4.89        | 727                               | 5.29   | 4.20                                      | 618                               | 4.23                                      |
|                         | 4,365                             | 7.09   | 1.77                                      | 2,127                             | 2.67                                      |

**Employee Stock Purchase Plan**

The Purchase Plan was approved by our stockholders in 2005; however, we have not implemented the Purchase Plan. The Purchase Plan allows all eligible employees to purchase shares of common stock at 85% of the lower of the fair market value on the first or the last day of each offering period. Employees may authorize us to withhold up to 15% of their compensation during any offering period, subject to certain limitations. The maximum aggregate number of shares of common stock which may be issued under the Purchase Plan is 3,173,634 as of December 31, 2008. This maximum number is subject to an annual automatic increase beginning on January 1, 2006 equal to the lesser of (i) 1% of the number of outstanding shares of common stock on such day, (ii) 750,000 or (iii) such other amount as our board of directors may specify. At December 31, 2008, no shares of common stock have been issued under the Purchase Plan. On January 1, 2009, the number of shares of common stock available for issuance under the Purchase Plan increased by 750,000 in accordance with the provisions for annual increases under the Purchase Plan.

**(9) Commitments****Operating Leases**

We are obligated under operating leases for office space and equipment. In July 2004, we entered into a lease for our current office space in San Diego, California. In June 2005, we leased additional space in the same facility. At December 31, 2008, the office lease requires a monthly payment of approximately \$21,000, excluding common area maintenance charges. The lease expires in August 2009. We lease copiers and an automobile, which leases expire in 2010 and 2011, respectively.

Rent expense was approximately \$258,000 and \$246,000 during the years ended December 31, 2008 and 2007, respectively. Future rental commitments under all operating leases are as follows:

| Year Ending December 31, |            |
|--------------------------|------------|
| 2009                     | \$ 192,731 |
| 2010                     | 10,375     |
| 2011                     | 2,452      |
| Total                    | \$ 205,558 |





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**(10) Material License Agreements Theragenex Agreement**

In October 2006, we entered into a license agreement with Theragenex, LLC. 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 (\$0.5 million of which we received in January 2007 and \$0.5 million of which was due in June 2007), milestone payments and royalties. In May 2007, we received a letter from TRx Pharma, a subsidiary of Theragenex, that we believed 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 \$0.5 million payment and, in subsequent discussions, indicated that it did not intend to pay the remaining \$0.5 million. On July 3, 2007, we notified Theragenex that, among other things, its failure to make the final \$0.5 million 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. 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 agreement. 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 \$0.5 million payment, plus interest, rescission of the 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. In May 2008, we settled our dispute with Theragenex. In consideration of and conditioned upon Theragenex paying us \$0.6 million, we and Theragenex agreed to jointly move to dismiss the underlying arbitration action, and in connection with dismissing the arbitration, we and Theragenex agreed to release each other from any and all claims related to our past relationship, including Theragenex's license rights to the product.

We recognized revenue of \$0.5 million for each of the years ended December 31, 2008 and 2007. Revenue in 2007 represents nonrefundable licensing fees paid under the agreement with Theragenex. Revenue in 2008 represents a portion of a settlement payment from Theragenex. We recognized \$0.5 million as revenue in 2008, which represents a portion of the \$0.6 million settlement payment, because under the agreement Theragenex was required to pay a total nonrefundable, up front licensing fee of \$1.0 million (\$0.5 million of which we received in January 2007 and \$0.5 million of which was due in June 2007) and because we met the criteria for revenue recognition. The remainder of the settlement payment, \$0.1 million, was recorded as other income.

**(11) Registration Payment Arrangement**

On July 21, 2005, we entered into a securities purchase agreement (the Agreement) with certain accredited institutional investors (the Purchasers) for the sale of 10,810,809 shares of our common stock (the Shares) at a purchase price of \$1.85 per share for aggregate gross proceeds of \$19,999,997. In connection with this financing, we issued the Purchasers seven-year warrants to purchase 10,810,809 shares of our common stock (the Warrant Shares) at an exercise price of \$2.26 per share. We received net proceeds of \$18,116,751, after deducting commissions and offering fees and expenses, which included cash payments of \$1,403,000 to placement agents and \$283,246 in legal and accounting fees.

Pursuant to the terms of the Agreement, if (i) a registration statement covering (A) all of the Shares and the Warrant Shares and (B) any other shares of common stock issued or issuable in respect to the Shares and the Warrant Shares because of stock splits, stock dividends, reclassifications, recapitalizations or similar events (together, the Registrable Shares) required to be covered thereby and required to be filed by us is (A) not filed with the SEC on or before 45 days after the closing of such financing (a Filing Failure) or (B) if such registration statement is not declared effective by the SEC on or before 90 days after the closing of such financing (an Effectiveness Failure) or (ii) on any day after the effective date of the registration statement sales of all the Registrable Shares required to be included on

such registration statement cannot be made (other than as permitted during a suspension pursuant to the Agreement) pursuant to such registration statement (including, without limitation, because of a failure to keep the registration statement effective, to disclose such information as is necessary for sales to be made pursuant to such registration statement or to register sufficient number of Shares) (a Maintenance Failure ), then, we will be obligated, without limiting any other remedies of any Purchaser, to pay as liquidated damages (the Liquidated Damages ) for such failure and not as a penalty to any Purchaser an amount in cash determined in accordance with the formula set forth below:

For each 30-day period that a Filing Failure, Effectiveness Failure or Maintenance Failure remains uncured, we will pay an amount equal to the purchase price paid to us for all Shares then held by such Purchaser multiplied by 1% for the first 30-day period or any portion thereof and increasing by an additional 1% with regard to each additional 30-day period until such Filing Failure, Effectiveness Failure or Maintenance Failure is cured.

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For any partial 30-day period in which a Filing Failure, Effectiveness Failure or Maintenance Failure exists but is cured prior to the end of the 30-day period, we will pay the Purchasers a pro rata portion of the amount which would be due if the failure continued for the entire 30-day period. For example, if the purchase price paid for all Shares then held by a Purchaser is \$5,000,000, then, (a) at the end of the 30th day, the Liquidated Damages would be 1% or \$50,000, (b) at the end of the 60th day, the Liquidated Damages for the first 30-day period would have been 1% or \$50,000 and for the second 30-day period would be 2% or \$100,000, and (c) at the end of the 105th day, the Liquidated Damages for the first 30-day period would have been 1% or \$50,000, for the second 30-day period 2% or \$100,000, for the third 30-day period 3% or \$150,000, and for the final 15-day period, 4% applied pro rata to such 15 days, or \$100,000.

There is no cap to the amount of Liquidated Damages that we may be obligated to pay. Payments to be made pursuant to the July 2005 Registration Payment Arrangement will be due and payable to the Purchasers at the end of each calendar month during which Liquidated Damages will have accrued. No Liquidated Damages will be due or payable to a Purchaser in any event if as of the date of the Filing Failure, Effectiveness Failure or Maintenance Failure such Purchaser could sell all of the Registrable Shares such Purchaser then holds without registration by reason of subsection (k) of Rule 144 under the Securities Act of 1933, as amended. Recent changes to Rule 144 eliminated subsection (k) of Rule 144. These changes liberalized the rules governing the resale of securities issued in private transactions; however, resales of securities held by affiliates are still subject to the current public information, volume, manner of sale and notice requirements contained in Rule 144 and, as a result, we do not expect such changes to Rule 144 to necessarily reduce the potential length of our payment obligations in the event of a Maintenance Failure. The registration statement was filed and declared effective by the SEC on September 2, 2005, which was within the allowed time. We have not incurred nor paid any Liquidated Damages in connection with the July 2005 Registration Payment Arrangement.

On January 1, 2007, we adopted the provisions of FSP EITF 00-19-2. In December 2007, management determined that it was not probable that we would have any payment obligation under the July 2005 Registration Payment Arrangement; therefore, no accrual for contingent obligation was required under the provisions of FSP EITF 00-19-2. Accordingly, the warrant liability account was eliminated and the comparative condensed consolidated financial statements of the prior periods and as of December 31, 2006 were adjusted to apply the new method retrospectively. The Company accounted for FSP EITF 00-19-2 appropriately by eliminating the warrant liability as of December 31, 2007, but upon further review in 2008, management determined that it was not correct to adjust the prior period comparative financial statements. Accordingly, the Company has made the appropriate adjustments to reinstate the warrant liability accounting as originally recorded.

**(12) Income Taxes**

Due to our net loss for the years ended December 31, 2008 and 2007, and as we have recorded a full valuation allowance against deferred tax assets, there was no provision or benefit for income taxes recorded. There were no components of current or deferred federal, state or foreign tax provisions for the years ended December 31, 2008 and 2007.

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The income tax provision is different from that which would be obtained by applying the statutory Federal income tax rate (34%) to income before income tax expense. The items causing this difference for the periods are as follows:

|  | <b>2008</b>  | <b>2007</b>  |
|--|--------------|--------------|
| Income tax expense at federal statutory rate         | \$ 9,060,000 | \$ 7,503,000 |
| State taxes  | (2,000)      | (2,000)      |
| R & D Credit   | 310,000      | 628,000      |
| Stock options  | (542,000)    | (432,000)    |
| Net operating true-ups                               | 1,600,000    |              |
| Other  | 49,000       | (152,000)    |
| Change in federal valuation allowance                | (10,475,000) | (7,545,000)  |
| <br>   |              |              |
| Total Tax Expense/(Benefit) on Continuing Operations | \$           | \$           |

On July 13, 2006, the FASB issued FIN 48. Under FIN 48, the impact of an uncertain income tax position on the income tax return must be recognized at the largest amount that is more-likely-than-not to be sustained upon audit by the relevant taxing authority. 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 de-recognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. FIN 48 is effective for fiscal years beginning after December 15, 2006. We adopted the provisions of FIN 48 on January 1, 2007. There were no unrecognized tax benefits as of the date of adoption. As of December 31, 2008 we continue to have no unrecognized tax benefits. As a result of the implementation of FIN 48, we did not recognize an increase in the liability for unrecognized tax benefits. There are no unrecognized tax benefits included in the balance sheet that would, if recognized, affect the effective tax rate.

Our policy is to recognize interest and/or penalties related to income tax matters in income tax expense. We had no accrual for interest or penalties on our balance sheets at December 31, 2008 and 2007, and has not recognized interest and/or penalties in the statement of operations for the year ended December 31, 2008.

We are subject to taxation in the United States and the state of California. All of our tax years are subject to examination by the United States and California tax authorities due to the carry forward of unutilized net operating losses and R&D credits.

The adoption of FIN 48 did not impact our consolidated financial condition, results of operations or cash flows. At December 31, 2008, we had net deferred tax assets of approximately \$39.6 million. Due to uncertainties surrounding our ability to generate future taxable income to realize these assets, a full valuation has been established to offset the net deferred tax asset.

Subsequent to the filing of our 2007 Form 10K, we completed an Internal Revenue Code Section 382 study. As a result of this study, we determined that based upon ownership changes, only \$158,000 of the \$4.5 million net operating losses we had previously removed from the deferred tax assets in 2007 would expire unused. Accordingly, we have re-established approximately \$1.6 million of the deferred tax assets related to these net operating losses with a corresponding increase to the valuation allowance.

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Deferred income taxes reflect the net tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of deferred tax assets and liabilities at December 31, 2008 and 2007 are as follows:

|   | <b>December 31,</b> |              |
|---|---------------------|--------------|
|   | <b>2008</b>         | <b>2007</b>  |
| Deferred tax assets:                                  |                     |              |
| Accrued expenses                                      | \$ 248,776          | \$ 150,210   |
| Stock options expense under SFAS No. 123              | 1,677,809           | 1,675,824    |
| Net operating loss carryforwards                      | 33,102,741          | 22,338,915   |
| Income tax credit carryforwards                       | 2,262,374           | 1,729,194    |
| Property, plant and equipment                         | 41,056              | 38,065       |
| Intangibles   | 2,285,263           | 1,535,487    |
| Other   | 6,553               | 577          |
| <br>  |                     |              |
| Total deferred tax assets                             | 39,624,572          | 27,468,272   |
| <br>  |                     |              |
| Less: valuation allowance                             | (39,624,572)        | (27,468,272) |
| <br>  |                     |              |
| Total deferred tax assets, net of valuation allowance | \$                  | \$           |

We have established a valuation allowance against our deferred tax asset due to the uncertainty surrounding the realization of such assets. Management periodically evaluates the recoverability of the deferred tax asset. At such time as it is determined that it is more likely than not that the deferred tax assets are realizable, the valuation allowance will be reduced. We have recorded a valuation allowance of approximately \$39.6 million as of December 31, 2008 to reflect the estimated amount of deferred taxes that may not be realized. We increased the valuation allowance by approximately \$12.1 million for the year ended December 31, 2008. The deferred tax asset for the net operating losses and the related valuation allowance includes approximately \$47,000 related to stock option deductions, the benefit of which may eventually be credited to equity. As a result of our subsequent adoption of SFAS 123(R), we recognize windfall tax benefits associated with the exercise of stock options directly to stockholders' equity only when realized. Accordingly, as we are in a cumulative loss position, deferred tax assets have not been recognized for net operating loss carryforwards resulting from windfall tax benefits generated under SFAS 123(R). At December 31, 2008, we do not have any windfall tax benefits under SFAS 123(R).

At December 31, 2008, we had Federal and California tax loss carryforwards of approximately \$90.4 million and \$41.4 million, respectively. The Federal and California net operating loss carryforwards begin to expire in 2020 and 2012 respectively, if unused. At December 31, 2008, we had Federal and state tax credit carryforwards of approximately \$1.6 million and \$973,000, respectively. The federal credits will begin to expire in 2024. The California research and experimentation credit does not expire.

**(13) Litigation**

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.

**(14) 401(k) Plan**

We have a defined contribution savings plan pursuant to Section 401(k) of the IRC. The plan is for the benefit of all qualifying employees and permits voluntary contributions by employees up to 100% of eligible compensation, subject

to the Internal Revenue Service ( IRS )-imposed maximum limits. Up until January 1, 2008, we were required to make matching contributions in the amount of 100% of employee contributions to 3% of eligible compensation and 50% of employee contributions between 3% and 5% of eligible compensation. Effective January 1, 2008, our 401(k) Plan was amended, which required us to make matching contributions equal to 100% of employee contributions up to 6% of eligible compensation, limited by the IRS-imposed maximum. We incurred total expenses of approximately \$218,150 and \$118,000 in employer matching contributions in 2008 and 2007, respectively.

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**(15) Segment Information**

We operate our business on the basis of a single reportable segment, which, fundamentally, is the business of in-licensing, developing and commercializing proprietary product candidates for the treatment of cancer. We evaluate our company as a single operating segment. The majority of our operating activities and work performed by our employees are currently conducted from a single location in the U.S. We recognized revenues of \$0.5 million in each of 2008 and 2007, which revenues were derived solely from license fees under a license agreement with Theragenex, LLC, which we terminated in August 2007.

**(16) Summary of Quarterly Financial Data (unaudited)**

The following is a summary of the unaudited quarterly results of operations for the years ended December 31, 2008 and 2007:

| <b>Quarterly statement of operations data for 2008 (unaudited):</b>             | <b>Quarters Ended</b> |                |                     |                    |
|---|-----------------------|----------------|---------------------|--------------------|
|   | <b>March 31</b>       | <b>June 30</b> | <b>September 30</b> | <b>December 31</b> |
| Licensing revenue   | \$                    | \$ 500,000     | \$                  | \$                 |
| Gross margin  |                       | 500,000        |                     |                    |
| Loss from operations  | (6,232,280)           | (6,691,199)    | (6,856,013)         | (7,530,343)        |
| Net loss  | (5,933,072)           | (6,425,530)    | (6,776,863)         | (7,512,028)        |
| Basic and diluted net loss per share  | \$ (0.07)             | \$ (0.07)      | \$ (0.08)           | \$ (0.08)          |
| Basic and diluted weighted average number of shares of common stock outstanding | 90,252,572            | 90,252,572     | 90,252,572          | 90,252,572         |

| <b>Quarterly statement of operations data for 2007 (unaudited):</b>             | <b>Quarters Ended</b> |                |                     |                    |
|---|-----------------------|----------------|---------------------|--------------------|
|   | <b>March 31</b>       | <b>June 30</b> | <b>September 30</b> | <b>December 31</b> |
| Licensing revenue   | \$ 500,000            | \$             | \$                  | \$                 |
| Gross margin  | 500,000               |                |                     |                    |
| Loss from operations  | (5,745,998)           | (6,299,042)    | (6,446,415)         | (5,819,590)        |
| Net loss  | (5,123,814)           | (5,722,828)    | (5,914,124)         | (5,381,274)        |
| Basic and diluted net income (loss) per share                                   | \$ (0.06)             | \$ (0.06)      | \$ (0.07)           | \$ (0.06)          |
| Basic and diluted weighted average number of shares of common stock outstanding | 89,676,739            | 89,706,739     | 90,007,509          | 90,252,572         |

**(17) Severance Related Expenses**

In February 2008, a letter agreement regarding terms of separation of employment with James A. Merritt, our former president and chief medical officer, became effective. Dr. Merritt's employment relationship with us ended in January 2008. As a result of his separation, we recorded \$185,916 in severance payments and related employer taxes and \$16,038 for payments to cover the health, welfare and retirement benefits that we would have incurred had Dr. Merritt remained employed by us for 6 months after the end of our employment relationship. Severance-related charges were recorded in the first, second and third quarters of 2008.

In April 2008, a letter agreement regarding terms of separation of employment with Gregory P. Hanson, our former chief financial officer, treasurer and senior vice president, became effective. Mr. Hanson's employment relationship with us ended in April 2008. As a result of his separation, we recorded \$128,157 in severance payments and related employer taxes and \$20,997 for payments to cover the health, welfare and retirement benefits that we would have incurred had Mr. Hanson remained employed by us for 6 months after the end of our employment relationship. Total severance-related charges were recorded in the second, third and fourth quarters of 2008.

In October 2008, as part of a restructuring to reduce operating costs, we completed a work force reduction of nine employees in October 2008. As a result of the reduction in force, in accordance with FAS No. 146, Accounting for Costs Associated with Exit or Disposal Activities, we recorded severance-related charges of \$403,000, of which \$384,000 was recorded as research and development expenses and the remainder as selling, general and administrative expenses. Of the severance-related charges, \$372,000 relates to severance payments and related employer taxes, and \$31,000 relates to health benefit allowance payments that eligible

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former employees may use, at their discretion, to pay the premiums required to continue their group health care coverage under COBRA or any other health care related expenses. Severance-related charges of \$244,000 were recorded in the fourth quarter of 2008 and the remainder will be recorded in the first and second quarters of 2009. In December 2008, the Confidential Separation Agreement and General Release of All Claims governing the terms of separation of employment with Evan M. Levine, our former chief executive officer and president and member of our Board of Directors, became effective. Mr. Levine's employment relationship with us ended in October 2008 and he resigned from our Board of Directors in December 2008. As a result of his separation, we recorded \$275,752 in severance payments and related employer taxes, \$19,870 in health benefit allowance payments that Mr. Levine may use, at his discretion, to pay the premiums required to continue his group health care coverage under COBRA or any other health care related expenses and an additional payment of \$110,650 in lieu of issuing shares of stock. Severance-related charges were recorded in the fourth quarter of 2008.

**(18) Subsequent Events**

In January 2009, the Confidential Separation Agreement and General Release of All Claims governing the terms of separation of employment with Mark N.K. Bagnall, our former executive vice president and chief financial officer, which was agreed to by Mr. Bagnall in December 2008, became effective. Mr. Bagnall's employment relationship with us ended in December 2008. As a result of his separation, we recorded \$174,787 in severance payments and related employer taxes and \$18,352 in health benefit allowance payments that Mr. Bagnall may use, at his discretion, to pay the premiums required to continue his group health care coverage under COBRA or any other health care related expenses. Severance-related charges were recorded in the fourth quarter of 2008.

In January 2009, in order to further reduce operating costs, we completed a work force reduction of six employees. As a result of the reduction in force, we estimate recording severance-related charges of approximately \$192,000, of which we estimate approximately \$95,000 will be recorded as research and development and the remainder as selling, general and administrative expenses. Of the severance-related charges, we estimate that approximately \$173,000 will relate to severance payments and related employer taxes and approximately \$19,000 will relate to health benefit allowance payments that eligible former employees may use, at their discretion, to pay the premiums required to continue their group health care coverage under COBRA or any other health care related expenses. We estimate that severance-related charges of approximately \$132,000 will be recorded in the first quarter of 2009 and the remainder will be recorded in the second quarter of 2009. The severance-related charges that we expect to incur in connection with the reduction in force are subject to a number of assumptions and actual results may differ. We may also incur other charges not currently contemplated due to events that may occur as a result of, or associated with, the restructuring.

In January 2009, we entered into retention and incentive agreements with seven employees, including our executive officers, and granted under the 2008 Plan restricted stock units to these employees that represented the right to receive in the aggregate 3,700,000 shares of our common stock, including 1,200,000 units to our chief business officer and senior vice president, 850,000 units to our general counsel, 650,000 units to our senior vice president of operations and 450,000 units to our vice president of regulatory and quality. These units will vest immediately prior to a strategic transaction (as defined in the documentation evidencing the grant of the units). The retention and incentive agreements and associated restricted stock units awards are primarily intended to reinforce and encourage these employees continued employment with and dedication to our company without distraction from the possibility of involuntary termination or a change in control and related events and circumstances.

In February 2009, our Board of Directors appointed Brian M. Culley, our chief business officer and senior vice president, to additionally serve as our principal executive officer and appointed Mr. Bagnall to additionally serve as our principal financial officer and principal accounting officer.

In February 2009, we announced that we have received written indications of interest from numerous companies representing a range of strategic transactions and currently are evaluating all proposals and options. We also indicated

that continued cost-containment measures may impact the timeline of our regulatory filings.

In March 2009, we announced that, effective April 3, 2009, we will reduce our full-time workforce to five employees and will discontinue substantially all of our development activities and fundamental business operations to provide additional time to consummate a strategic transaction or otherwise obtain financing. Our remaining employees, which consist of our chief business officer and senior vice president, our general counsel, our senior vice president of operations, our vice president of regulatory affairs and quality and our manager of accounting, will focus their efforts primarily on continuing to evaluate and execute strategic options.

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**ADVENTRX Pharmaceuticals, Inc. and Subsidiaries**  
(A Development Stage Enterprise)  
**Notes to Consolidated Financial Statements (continued)**  
**December 31, 2008**

We stated that, along with the reductions we implemented in October 2008 and January 2009, and our prior cost-containment measures, the reduction and other efforts will extend our cash cliff and increase the opportunity for us to close a strategic transaction with one of the parties with whom we currently are in discussions or another company that we identify in the future.

In March 2009, we announced that we and SDP had entered into a license agreement (the License Agreement) with Shin Poong Pharmaceutical Co., Ltd., a company organized under the laws of the Republic of Korea (Shin Poong), pursuant to which we granted to Shin Poong an exclusive license, including the right to sublicense, to research, develop, make, have made, use, offer for sale, sell and import licensed products, in each case solely for the treatment of cancer by intravenous administration of formulations of docetaxel as emulsified products and solely in South Korea. Under the terms of the License Agreement, we will receive an upfront licensing fee of \$300,000, a regulatory milestone payment of either \$200,000 or \$400,000 (depending on whether Shin Poong is required by the Korea Food and Drug Administration to conduct a bioequivalence or clinical study in human subjects prior to receipt of regulatory approval) upon receipt of regulatory approval for marketing a licensed product in South Korea, one-time commercial milestone payments tied to annual net sales of licensed products in an aggregate amount of up to \$1,500,000 and royalty payments on net sales of licensed products. Shin Poong is responsible for all development and commercial activities related to ANX-514 in South Korea. If Shin Poong is required by the Korea Food and Drug Administration to conduct a bioequivalence or clinical trial in human subjects prior to receipt of regulatory approval and we elect not to supply product to conduct such trial, which supply obligation is subject to limitations, we will pay Shin Poong \$100,000.

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**ADVENTRX PHARMACEUTICALS, INC.**  
**[ ] Shares of [ ]% Series C Convertible Preferred Stock**  
**Warrants to Purchase up to [ ] Shares of Common Stock**  
**[ ] Shares of Common Stock Underlying the Convertible Preferred Stock and the Warrants**  
Prospectus  
\_\_\_\_, 2009

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**PART II**  
**INFORMATION NOT REQUIRED IN THE PROSPECTUS**

**ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION**

The following table sets forth the fees and expenses incurred or expected to be incurred by us in connection with the issuance and distribution of the securities being registered hereby, other than placement agent fees. All of the amounts shown are estimated except the SEC registration fee. Estimated fees and expenses can only reflect information that is known at the time of filing this registration statement and are subject to future contingencies, including additional expenses for future offerings.

|   |           |
|---|-----------|
| Securities and Exchange Commission registration fee | \$ 558    |
| Transfer agent fees and expenses                    | 15,000    |
| Escrow agent fees and expenses                      | 5,000     |
| Printing and engraving expenses                     | 25,000    |
| Legal fees and expenses                             | 150,000   |
| Accounting fees and expenses                        | 50,000    |
| Miscellaneous expenses                              | 5,000     |
| Total   | \$250,558 |

**ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS**

Section 145 of the Delaware General Corporation Law, or the DGCL, authorizes a corporation to indemnify its directors and officers against liabilities arising out of actions, suits and proceedings to which they are made or threatened to be made a party by reason of the fact of their prior or current service to a corporation as a director or officer, in accordance with the provisions of Section 145, which are sufficiently broad to permit indemnification under certain circumstances for liabilities arising under the Securities Act of 1933, as amended, or the Securities Act. The indemnity may cover expenses (including attorneys' fees) judgments, fines and amounts paid in settlement actually and reasonably incurred by the director or officer in connection with any such action, suit or proceeding. Section 145 permits corporations to pay expenses (including attorneys' fees) incurred by directors and officers in advance of the final disposition of such action, suit or proceeding. In addition, Section 145 provides that a corporation has the power to purchase and maintain insurance on behalf of its directors and officers against any liability asserted against them and incurred by them in their capacity as a director or officer, or arising out of their status as such, whether or not the corporation would have the power to indemnify the director or officer against such liability under Section 145.

Our certificate of incorporation provides that, to the fullest extent permitted by the DGCL, (a) a director shall not be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, and (b) we shall indemnify any director or officer made a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact of such person's current or prior service as a director or officer of ours, any predecessor of ours or any other enterprise per our or any predecessor of ours request.

Our bylaws provide that (a) we shall indemnify our directors and officers to the maximum extent and in the manner permitted by the DGCL against expenses (including attorneys' fees), judgments, fines, ERISA excise taxes, settlements and other amounts actually and reasonably incurred in connection with any proceeding, whether civil, criminal, administrative or investigative, arising by reason of the fact that such person is or was an agent of ours, subject to certain limited exceptions, (b) we shall advance expenses incurred by any director or officer prior to the final disposition of any proceeding to which the director or officer was or is or is threatened to be made a party promptly following a request therefore, subject to certain limited exceptions, and (c) the rights conferred in our bylaws are not exclusive.

We have entered into indemnification agreements with each of our directors and officers to give such directors and officers additional contractual assurances regarding the scope of the indemnification set forth in our certificate of incorporation and bylaws and to provide additional procedural protections. These agreements, among other things, provide that we will indemnify our directors and officers for expenses (including attorneys' fees), judgments, fines, penalties and amounts paid in settlement (including all interest, assessments and other charges paid or payable in connection therewith) actually and reasonably incurred by a director or officer in connection with any action or

proceeding to which such person was, is or is threatened to be made a party, a witness or other participant by reason of such person's services as a director or officer of ours, any of our subsidiaries or any other company or

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enterprise to which the person provides services at our request, and any federal, state, local or foreign taxes imposed on the director or officer as a result of the actual or deemed receipt of any payments under the indemnification agreements.

In addition, the indemnification agreements provide that, upon the request of a director or officer, we shall advance expenses (including attorneys' fees) to the director or officer. We intend to enter into indemnification agreements with any new directors and officers in the future.

In addition, Alexander J. Denner, a director of ours, is further indemnified against liabilities arising in connection with his services as a director of ours through his employment arrangement with entities controlled by Mr. Carl C. Icahn. Such indemnification may be broader than the indemnification provided by the DGCL and includes indemnification for expenses (including attorneys' fees), judgments and fines incurred and amounts paid in settlement by Dr. Denner in connection with any action or proceeding to which Dr. Denner was, is or is threatened to be made a party or participant by reason of his services as a director of ours.

We have also obtained an insurance policy covering our directors and officers with respect to certain liabilities, including liabilities arising under the Securities Act.

**ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES**

During the three-year period preceding the date of the filing of this registration statement, we have issued securities in the transactions described below without registration under the Securities Act. These securities were offered and sold by us in reliance upon exemptions from the registration statement requirements provided by Section 4(2) of the Securities Act or Regulation D under the Securities Act as transactions by an issuer not involving a public offering.

On June 12, 2009, in connection with the closing of our registered direct offering of convertible preferred stock and warrants to purchase common stock, we issued to Rodman & Renshaw, LLC, as additional consideration for its services as placement agent, warrants to purchase up to 901,810 shares of the Company's common stock at an exercise price of \$0.15 per share. The warrants are exercisable at the option of the holder at any time beginning on December 13, 2009 through and including June 12, 2014.

On July 6, 2009, in connection with the closing of the Company's registered direct offering of its convertible preferred stock, the Company issued to Rodman & Renshaw, LLC, as additional consideration for its services as placement agent, warrants to purchase up to 475,209 shares of the Company's common stock at an exercise price of \$0.179 per share. The warrants are exercisable at the option of the holder at any time beginning on January 7, 2010 through and including July 6, 2014.

Since July 16, 2006, we issued an aggregate of 2,770,871 shares of common stock to 68 of our warrant holders and received gross proceeds of approximately \$4.5 million upon the exercise of certain outstanding warrants at a weighted average exercise price of \$1.64. Pursuant to the terms of an agreement we entered into with Burnham Hill Partners, a division of Pali Capital, Inc., in March 2004, we have an obligation to pay a 4% cash commission to Burnham Hill Partners with respect to the cash we receive upon exercise of each warrant issued in a financing we consummated in April 2004. Accordingly, we have paid Burnham Hill Partners approximately \$145,000 in connection with the warrants exercised since July 16, 2006. No other commission or other remuneration was paid or given directly or indirectly in connection with these warrant exercises.

**ITEM 16. EXHIBITS**

A list of exhibits filed herewith is contained in the exhibit index that immediately precedes such exhibits and is incorporated herein by reference.

**ITEM 17. UNDERTAKINGS**

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such

indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

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(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized in the City of San Diego, State of California, on July 24, 2009.

ADVENTRX PHARMACEUTICALS, INC.

By: /s/ Brian M. Culley  
 Brian M. Culley  
 Chief Business Officer and  
 Senior Vice President

**POWER OF ATTORNEY**

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Brian M. Culley and Patrick L. Keran, and each of them acting individually, as his true and lawful attorneys-in-fact and agent, with full power of each to act alone, with full powers of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments and any related registration statements filed pursuant to Rule 462 and otherwise), and to file the same with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them or their substitute or resubstitute, may lawfully do or cause to be done by virtue hereof. Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

| <b>Signature</b>        | <b>Title</b>   | <b>Date</b>   |
|-------------------------|--|---------------|
| /s/ Brian M. Culley     | Chief Business Officer and Senior Vice President     | July 24, 2009 |
| Brian M. Culley         | (Principal Executive Officer)                        |               |
| /s/ Patrick L. Keran    | General Counsel, Secretary and Vice President, Legal | July 24, 2009 |
| Patrick L. Keran        | (Principal Financial and Accounting Officer)         |               |
| /s/ Jack Lief           | Chair of the Board                                   | July 24, 2009 |
| Jack Lief               |  |               |
| /s/ Mark N.K. Bagnall   | Director   | July 24, 2009 |
| Mark N.K. Bagnall       |  |               |
| /s/ Alexander J. Denner | Director   | July 24, 2009 |
| Alexander J. Denner     |  |               |
| /s/ Michael M. Goldberg | Director   | July 24, 2009 |

Michael M. Goldberg

/s/ Mark J. Pykett

Director

July 24, 2009

Mark J. Pykett

/s/ Eric K. Rowinsky

Director

July 24, 2009

Eric K. Rowinsky

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**EXHIBIT INDEX**

| Exhibit | Description   |
|---------|---|
| 2.1(1)  | Agreement and Plan of Merger, dated April 7, 2006, among the registrant, Speed Acquisition, Inc., SD Pharmaceuticals, Inc. and certain individuals named therein (including exhibits thereto) |
| 3.1(2)  | Amended and Restated Certificate of Incorporation of the registrant   |
| 3.2(3)  | Certificate of Designation of Preferences, Rights and Limitations of 0% Series A Convertible Preferred Stock  |
| 3.3(4)  | Certificate of Designation of Preferences, Rights and Limitations of 5% Series B Convertible Preferred Stock  |
| 3.4±    | Certificate of Designation of Preferences, Rights and Limitations of [ ]% Series C Convertible Preferred Stock  |
| 3.5(5)  | Amended and Restated Bylaws of the registrant (formerly known as Biokeys Pharmaceuticals, Inc.)   |
| 4.1(6)  | Form of Registration Rights Agreement entered into in October and November 2001 (including the original schedule of holders)  |
| 4.2(7)  | \$2.50 Warrant to Purchase Common Stock issued on April 12, 2002 to Emisphere Technologies, Inc.  |
| 4.3(6)  | Form of \$0.60 Warrant to Purchase Common Stock issued May 28, 2003 (including the original schedule of holders)  |
| 4.4(6)  | Form of \$1.25 Warrant to Purchase Common Stock issued between October 15, 2003 and December 29, 2003 (including the original schedule of holders)  |
| 4.5(6)  | Common Stock and Warrant Purchase Agreement, dated as of April 5, 2004, among the registrant and the Investors (as defined therein)   |
| 4.6(6)  | Registration Rights Agreement, dated April 5, 2004, among the registrant and the Investors (as defined therein)   |
| 4.7(6)  | Form of \$2.00 A-1 Warrant to Purchase Common Stock issued April 8, 2004 (including the original schedule of holders)   |
| 4.8(6)  | Form of \$2.50 A-2 Warrant to Purchase Common Stock issued April 8, 2004 (including the original schedule of holders)   |
| 4.9(8)  | Common Stock and Warrant Purchase Agreement, dated April 8, 2004, between the registrant and CD Investment Partners, Ltd.   |
| 4.10(8) | Registration Rights Agreement, dated April 8, 2004, between the registrant and CD Investment Partners, Ltd.   |

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- 4.11(8) \$2.00 A-1 Warrant to Purchase Common Stock issued on April 8, 2004 to CD Investment Partners, Ltd.
- 4.12(8) \$2.00 A-1 Warrant to Purchase Common Stock issued on April 8, 2004 to Burnham Hill Partners
- 4.13(8) \$2.00 A-1 Warrant to Purchase Common Stock issued on April 8, 2004 to Ernest Pernet
- 4.14(8) \$2.00 A-1 Warrant to Purchase Common Stock issued on April 8, 2004 to W.R. Hambrecht + Co., LLC
- 4.15(9) Common Stock and Warrant Purchase Agreement, dated April 19, 2004, between the registrant and Franklin M. Berger
- 4.16(9) Registration Rights Agreement, dated April 19, 2004, between the registrant and Franklin M. Berger

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| Exhibit  | Description  |
|----------|--|
| 4.17(9)  | \$2.00 A-1 Warrant to Purchase Common Stock issued on April 19, 2004 to Franklin M. Berger   |
| 4.18(10) | Securities Purchase Agreement, dated July 21, 2005, among the registrant and the Purchasers (as defined therein)   |
| 4.19(10) | Rights Agreement, dated July 27, 2005, among the registrant, the Icahn Purchasers and Viking (each as defined therein)   |
| 4.20(11) | First Amendment to Rights Agreement, dated September 22, 2006, among the registrant and the Icahn Purchasers (as defined therein)                                |
| 4.21(12) | Second Amendment to Rights Agreement, dated February 25, 2008, among the registrant and the Icahn purchasers (as defined therein)                                |
| 4.22(10) | Form of \$2.26 Common Stock Warrant issued on July 27, 2005 (including the original schedule of holders)   |
| 4.23(10) | Form of \$2.26 Common Stock Warrant issued on July 27, 2005 (including the original schedule of holders)   |
| 4.24(12) | \$0.50 Warrant (WC-291) to Purchase Common Stock transferred on June 15, 2005 to S. Neborsky and R Neborsky TTEE Robert J. Neborsky MD Inc Comb Retirement Trust |
| 4.25(12) | \$0.50 Warrant (WC-292) to Purchase Common Stock transferred on June 15, 2005 to S. Neborsky and R Neborsky TTEE Robert J. Neborsky MD Inc Comb Retirement Trust |
| 4.26(12) | \$2.50 Warrant to Purchase Common Stock issued on October 22, 2004 to Thomas J. DePetrillo   |
| 4.27(3)  | Securities Purchase Agreement, dated June 8, 2009, by and between ADVENTRX Pharmaceuticals, Inc. and the purchasers listed on the signature pages thereto        |
| 4.28(3)  | Form of Common Stock Purchase Warrants issued on July 6, 2009 by ADVENTRX Pharmaceuticals, Inc. to the Rodman & Renshaw, LLC                                     |
| 4.29(4)  | Securities Purchase Agreement, dated June 29, 2009, by and between ADVENTRX Pharmaceuticals, Inc. and the purchasers listed on the signature pages thereto       |
| 4.30(4)  | Form of Common Stock Purchase Warrant issued on July 6, 2009 by ADVENTRX Pharmaceuticals, Inc. to Rodman & Renshaw, LLC  |
| 4.31±    | Securities Purchase Agreement, dated [ ], 2009, by and between ADVENTRX Pharmaceuticals, Inc. and the purchasers listed on the signature pages thereto           |
| 4.32±    | Form of Common Stock Purchase Warrant  |
| 5.1±     | Opinion of DLA Piper LLP (US)  |

- 10.1#(14) 2005 Equity Incentive Plan
- 10.2#(15) Form of Stock Option Agreement under the 2005 Equity Incentive Plan
- 10.3#(16) Form of Stock Option Agreement under the 2005 Equity Incentive Plan (for director option grants beginning in 2008)
- 10.4#(17) Form of Stock Option Agreement under the 2005 Equity Incentive Plan (for option grants to employees approved in March 2008)
- 10.5#(2) Form of Restricted Share Award Agreement under the 2005 Equity Incentive Plan

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| Exhibit    | Description  |
|------------|--|
| 10.6#(15)  | 2005 Employee Stock Purchase Plan  |
| 10.7#(15)  | Form of Subscription Agreement under the 2005 Employee Stock Purchase Plan   |
| 10.8#(18)  | 2008 Omnibus Incentive Plan  |
| 10.9#(19)  | Form of Notice of Grant of Restricted Stock Units under the 2008 Omnibus Incentive Plan (for grants to employees in January 2009)  |
| 10.10#(19) | Form of Restricted Stock Units Agreement under the 2008 Omnibus Incentive Plan   |
| 10.11#(20) | Form of Non-Statutory Stock Option Grant Agreement (for directors) under the 2008 Omnibus Incentive Plan   |
| 10.12#(20) | Form of Non-Statutory/Incentive Stock Option Grant Agreement (for consultants / employees) under the 2008 Omnibus Incentive Plan   |
| 10.13#(17) | 2008 Incentive Plan  |
| 10.14 (21) | Option and License Agreement, dated January 23, 1998, between the registrant and the University of Southern California   |
| 10.15(5)   | First Amendment to License Agreement, dated August 16, 2000, between the registrant and the University of Southern California  |
| 10.16 (21) | Option and License Agreement, dated August 17, 2000, between the registrant and the University of Southern California  |
| 10.17 (22) | Amendment to Option and License Agreement, dated April 21, 2003, between the registrant and the University of Southern California  |
| 10.18 (23) | Second Amendment to Option and License Agreement, dated January 25, 2007, between the registrant and the University of Southern California   |
| 10.19 (2)  | Agreement, effective as of May 1, 2005, between the registrant and Pharm-Olam International Ltd.   |
| 10.20(2)   | Amendment dated July 19, 2005 to the Agreement between the registrant and Pharm-Olam International Ltd.  |
| 10.21(24)  | License Agreement, dated October 20, 2006, between the registrant, through its wholly-owned subsidiary SD Pharmaceuticals, Inc., and Theragenex, LLC   |
| 10.22(16)  | License Agreement, dated December 10, 2005, between SD Pharmaceuticals, Latitude Pharmaceuticals and Andrew Chen, including a certain letter, dated November 20, 2007, clarifying the scope of rights thereunder |



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- 10.23 (25) License Agreement, dated March 25, 2009, between the registrant, SD Pharmaceuticals, Inc. and Shin Poong Pharmaceutical Co., Ltd.
- 10.24(26) Standard Multi-Tenant Office Lease Gross, dated June 3, 2004, between the registrant and George V. Casey & Ellen M. Casey, Trustees of the Casey Family Trust dated June 22, 1998
- 10.25(2) First Amendment to the Standard Multi-Tenant Office Lease Gross, dated June 3, 2004 between the registrant and George V. & Ellen M. Casey, Trustees of the Casey Family Trust dated June 22, 1998
- 10.26#(27) Offer letter, dated March 5, 2003, to Joan M. Robbins

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| Exhibit    | Description  |
|------------|--|
| 10.27#(28) | Confidential Separation Agreement and General Release of All Claims, effective December 4, 2008, between the registrant and Joan M. Robbins  |
| 10.28#(29) | Offer letter, dated November 15, 2004, to Brian M. Culley  |
| 10.29#(19) | Retention and Incentive Agreement, dated January 28, 2009, between the registrant and Brian M. Culley  |
| 10.30#(30) | Severance Agreement and Release of All Claims, dated September 7, 2006, with Carrie Carlander  |
| 10.31#(30) | Consulting Agreement, dated September 7, 2006, with Carrie Carlander   |
| 10.32#(30) | Offer letter, dated September 7, 2006, to James A. Merritt   |
| 10.33#(16) | Letter agreement regarding terms of separation with James A. Merritt, effective as of February 12, 2008  |
| 10.34#(30) | Form of Stock Option Agreement between the registrant and James A. Merritt (included in Exhibit 10.28)   |
| 10.35#(31) | Offer letter, dated December 13, 2006, to Gregory P. Hanson  |
| 10.36#(31) | Stock Option Agreement, effective December 20, 2006, between the registrant and Gregory P. Hanson  |
| 10.37#(32) | Letter Agreement regarding terms of separation with Gregory P. Hanson, dated April 2, 2008   |
| 10.38#(32) | Consulting Agreement, dated April 2, 2008, with Gregory P. Hanson  |
| 10.39#(20) | Offer letter, dated April 1, 2008, to Mark N.K. Bagnall (including Exhibits A, B and C thereto)  |
| 10.40#(25) | Confidential Separation Agreement and General Release of All Claims, effective January 8, 2009, between the registrant and Mark N.K. Bagnall   |
| 10.41#(28) | Confidential Separation Agreement and General Release of All Claims, effective December 31, 2008, between the registrant and Evan M. Levine, including letter, dated November 7, 2008, related thereto |
| 10.42#(25) | Retention and Incentive Agreement, dated January 28, 2009, between the registrant and Patrick L. Keran   |
| 10.43#(25) | Retention and Incentive Agreement, dated January 28, 2009, between the registrant and Mark E. Erwin  |
| 10.44#(25) | Retention and Incentive Agreement, dated January 28, 2009, between the registrant and Michele L. Yelmene   |

- 10.45(24) Form of Director and Officer Indemnification Agreement
- 10.46#(33) Director compensation policy
- 10.47(34) Placement Agency Agreement, dated November 2, 2006, among the registrant, ThinkEquity Partners LLC and Fortis Securities LLC
- 10.48(3) Engagement Letter Agreement, dated June 7, 2009, by and between ADVENTRX Pharmaceuticals, Inc. and Rodman & Renshaw, LLC
- 10.49(4) Engagement Letter Agreement, dated June 26, 2009, by and between ADVENTRX Pharmaceuticals, Inc. and Rodman & Renshaw, LLC

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| Exhibit    | Description   |
|------------|---|
| 10.50±     | Engagement Letter Agreement, dated [ ], 2009, by and between ADVENTRX Pharmaceuticals, Inc. and Rodman & Renshaw, LLC     |
| 10.51#(35) | Incentive Stock Option Grant Agreement under the 2008 Omnibus Incentive Plan (for grant to Brian M. Culley in July 2009)  |
| 10.52#(35) | Incentive Stock Option Grant Agreement under the 2008 Omnibus Incentive Plan (for grant to Patrick L. Keran in July 2009) |
| 10.53#(35) | 2009 Mid-Year Incentive Plan  |
| 10.54#(35) | Retention and Severance Plan (as of July 21, 2009)  |
| 21.1*      | List of Subsidiaries  |
| 23.1*      | Consent of J.H. Cohn LLP, Independent Registered Public Accounting Firm   |
| 23.2±      | Consent of DLA Piper LLP (US) (included in Exhibit 5.1)   |
| 24.1*      | Power of attorney (included on the signature page to the registration statement)  |

\* Filed herewith

Indicates that confidential treatment has been requested or granted to certain portions, which portions have been omitted and filed separately with the SEC

# Indicates management contract or compensatory plan

± To be filed by amendment

(1) Filed with the registrant's Amendment No. 1 to Current Report on Form 8-K/A on May 1, 2006 (SEC file number 001-32157-06796248)

- (2) Filed with the registrant's Annual Report on Form 10-K on March 16, 2006 (SEC file number 001-32157-06693266)
- (3) Filed with the registrant's Current Report on Form 8-K on June 8, 2009 (SEC file number 001-32157-09878961)
- (4) Filed with the registrant's Current Report on Form 8-K on June 30, 2009 (SEC file number 001-32157-09917820)
- (5) Filed with the registrant's Current Report on Form 8-K on December 15, 2008 (SEC file number 001-32157-081249921)
- (6) Filed with the registrant's Registration Statement on Form S-3 on June 30, 2004 (SEC file number 333-117022-03848890)
- (7) Filed with the registrant's Amendment No. 1 to Quarterly Report on Form 10-Q/A on October 30, 2006 (SEC file number 001-32157-061170484)
- (8) Filed with the registrant's Current Report on Form 8-K/A on April 13, 2004 (SEC file number 000-33219-04730584)

- (9) Filed with the registrant's Quarterly Report on Form 10-QSB on May 12, 2004 (SEC file number 001-32157-04797806)
- (10) Filed with the registrant's Quarterly Report on Form 10-Q on August 12, 2005 (SEC file number 001-32157-051022046)
- (11) Filed with the registrant's Current Report on Form 8-K on September 22, 2006 (SEC file number 001-32157-061103268)
- (12) Filed with the registrant's Current Report on Form 8-K on February 25, 2008 (SEC file number 001-32157-08638638)

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- (13) Filed with the registrant s  
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333-127857-051050073)
- (14) Filed with the registrant s  
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001-32157-07697283)
- (15) Filed with the registrant s  
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on Form S-8 on July 13,  
2005 (SEC file number  
333-126551-05951362)
- (16) Filed with registrant s  
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001-32157-08690952)
- (17) Filed with the registrant s  
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001-32157-08820541)
- (18) Filed with the registrant s  
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001-32157-08874724)
- (19) Filed with the registrant s  
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001-32157- 09561715)
- (20) Filed with the registrant s  
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- (21) Filed with the registrant s  
Registration Statement  
on Form 10SB/A on  
January 14, 2002 (SEC  
file number  
000-33219-2508012)
- (22) Filed with the registrant s  
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file number  
000-33219-03848890)
- (23) Filed with the registrant s  
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001-32157-07829156)
- (24) Filed with the registrant s  
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001-32157-061156993)
- (25) Filed with the registrant s  
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- (26) Filed with the registrant s  
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001-32157-04963741)
- (27) Filed with the registrant s  
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000-33219-03651464)
- (28) Filed with the registrant s  
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001-32157-09708145)



- (29) Filed with the registrant s  
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001-32157-05719975)
- (30) Filed with the registrant s  
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- (31) Filed with the registrant s  
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- (33) Filed with the registrant s  
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(SEC file number  
001-32157-06922676)
- (34) Filed with the registrant s  
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001-32157-061184445)
- (35) Filed with the registrant s  
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