CORTEX PHARMACEUTICALS INC/DE/
Form S-1
January 20, 2011
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As filed with the Securities and Exchange Commission on January 20, 2011

Registration No. 333-

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

CORTEX PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**2834**	**33-0303583**
(State or other jurisdiction of	**(Primary Standard Industrial**	**(I.R.S. Employer**

incorporation or organization) **Classification Code Number)** **Identification No.)**

15241 Barranca Parkway

Irvine, California 92618

(949) 727-3157

(Address, including zip code, and telephone number, including area code, of registrant s principal executive offices)

Mark A. Varney, Ph.D.

President and Chief Executive Officer

Cortex Pharmaceuticals, Inc.

15241 Barranca Parkway

Irvine, California 92618

(949) 727-3157

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Lawrence B. Cohn

Marc G. Alcser

Stradling Yocca Carlson & Rauth

660 Newport Center Drive, Suite 1600

Newport Beach, California 92660

(949) 725-4000

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

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 registration 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	¨ (Do not check if a smaller reporting company)	Smaller reporting company	x

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	**Proposed maximum aggregate offering price**	**Amount of registration fee[1]**
Units, consisting of Common Stock (par value $0.001 per share)[2] and Warrants to purchase Common Stock		
Common Stock included in the Units		
Warrants included in the Units		[3]
Common Stock issuable upon the exercise of Warrants included in the Units[4]		[3]
Placement Agent Warrants		
Common Stock issuable upon the exercise of Placement Agent Warrants[4]		
Total	$3,000,000	$348.30

[1] Calculated pursuant to Rule 457(o) on the basis of the maximum aggregate offering price of all of the securities to be registered. In no event will the aggregate offering price of all securities issued in the offering pursuant to this registration statement exceed $3,000,000,

inclusive of any exercise price thereof.

(2) Shares of our common stock being registered hereunder are accompanied by our preferred stock purchase rights described in the Rights Agreement dated February 8, 2002, as amended to date, between us and American Stock Transfer & Trust Company as rights agent. Until the occurrence of certain prescribed events, such rights are not exercisable, are evidenced by each certificate for our common stock and will be transferred along and only with our common stock.

(3) No fee required pursuant to Rule 457(g).

(4) Pursuant to Rule 416 under the Securities Act of 1933, this registration statement also covers an indeterminate number of additional shares of common stock as may become issuable upon the exercise of the warrants to purchase shares of our common stock and the placement agent warrants as a result of stock splits, stock dividends or similar events.

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 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 subject to change. We may not sell these securities until the registration statement is filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, Dated January 20, 2011

Prospectus

Cortex Pharmaceuticals, Inc.

_____ Units

Each Consisting of

__ Shares of Common Stock

and

_____ Warrants to purchase __ Shares of Common Stock

We are offering up to __ units, each unit consisting of __ shares of our common stock and __ warrants to purchase __ shares of our common stock. Subject to certain ownership limitations, each warrant entitles the holder to purchase __ shares of our common stock at an exercise price of $____ per share. The units will not be issued or certificated. The units will separate immediately and the common stock and warrants will be issued separately and will trade separately. We are not required to sell any specific dollar amount or number of units, but will use our best efforts to sell all of the units being offered. This prospectus also relates to the warrants issuable to the placement agent as described below and to the shares of our common stock issuable upon the exercise of those warrants.

You should read this prospectus and any prospectus supplement carefully before you invest. This prospectus contains information you should consider when making your investment decision.

Our common stock is quoted on the OTC Bulletin Board under the symbol CORX.OB . On January 19, 2011, the last reported closing sale price of our common stock was $0.18 per share. We do not intend to apply for listing the warrants on any securities exchange.

Investing in our securities involves a high degree of risk. See Risk Factors beginning on page 4 of this prospectus for certain risks you should consider before purchasing any securities.

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.

_____ has agreed to act as our exclusive placement agent in connection with this offering. In addition, the placement agent may engage one or more sub placement agents or selected dealers. The placement agent is not purchasing the securities offered by us, and is not required to sell any specific number or dollar amount of units, but will assist us in this offering on a reasonable best efforts basis. We have agreed to pay the placement agent a cash fee equal to __% of the gross proceeds of the offering of units. In addition, we have agreed to issue to the placement agent, or its designees, warrants exercisable for an aggregate of __ percent of the units issued in this offering. We estimate the total expenses of this offering, excluding the placement agent fees, will be approximately $____. Because there is no minimum offering amount required as a condition to closing in this offering, the actual public offering amount, placement agent fees, and proceeds to us, if any, are not presently determinable and may be substantially less than the total maximum offering amounts set forth above. See Plan of Distribution beginning on page 59 of this prospectus for more information on this offering and the placement agent arrangements.

	Per Unit	Maximum Offering Amount
Public offering price	$	$ 3,000,000
Placement Agent fees	$	$
Proceeds, before expenses, to us	$	$

The closing of this offering is subject to certain conditions. We expect that delivery of the units being offered pursuant to this prospectus will be made to purchasers on or about _____ __, 2011, against payment in immediately available funds.

The date of this prospectus is _____ __, 2011.

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This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission. You should only rely on the information in this prospectus or to which we have referred you. Neither the Company nor the placement agent has authorized anyone to provide you with information or to make any representation on behalf of Cortex Pharmaceuticals, Inc. that is different from that contained in this prospectus. You should not rely on any unauthorized information or representation. This prospectus is an offer to sell only the securities offered by this prospectus under the circumstances and in jurisdictions where it is lawful to do so. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the date of delivery of this prospectus or of any sales of these securities. Our business, financial condition, results of operations and prospects may have changed since the date of this prospectus. This prospectus may be used only in jurisdictions were it is legal to sell these securities. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus outside the United States. We are not making any representation to you regarding the legality of an investment in the securities offered hereby under applicable law. You should consult with your own legal advisors as to the legal, tax, business, financial and related aspect of a purchase of such securities.

Industry and Market Data

Unless otherwise indicated, the market data and certain other statistical information used throughout this prospectus are based on independent industry publications, government publications, reports by market research firms or other published independent sources. Although we believe these third-party sources are reliable, we have not independently verified the information. None of the sources cited in this prospectus has consented to the inclusion of any data from its reports, nor have we sought their consent. In addition, some data are based on our good faith estimates. Such estimates are derived from publicly available information released by independent industry analysts and third-party sources, as well as our own management s experience in the industry, and are based on assumptions made by us based on such data and our knowledge of such industry and markets, which we believe to be reasonable. However, none of our estimates have been verified by any independent source. Our estimates and assumptions involve risks and uncertainties and are subject to change based on various factors, including those discussed in the Risk Factors section of this prospectus and the other information contained herein. These and other factors could cause our actual results to differ materially from those expressed in the estimates and assumptions.

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PROSPECTUS SUMMARY

About This Prospectus

This summary highlights the information contained elsewhere in this prospectus. Because this is only a summary, it does not contain all of the information you should consider before buying the securities of the Company. You should read the entire prospectus carefully, especially the sections entitled Caution Regarding Forward Looking Statements, Risk Factors and Management s Discussion and Analysis of Financial Condition and Results of Operations, together with our financial statements and the related notes thereto included elsewhere in this prospectus, before deciding to purchase any securities of the Company.

Unless we state otherwise or the context indicates otherwise, references to Cortex, Company, we, us and our in this prospectus refer to Corte Pharmaceuticals, Inc.

About Cortex Pharmaceuticals

We are engaged in the discovery and development of innovative pharmaceuticals for the treatment of psychiatric disorders, neurological diseases and sleep apnea. Our primary focus is to develop novel small molecule compounds that positively modulate AMPA-type glutamate receptors, a complex of proteins that is involved in communication between nerve cells in the mammalian brain. We are developing a family of proprietary pharmaceuticals known as AMPAKINE® compounds, which enhance the activity of this receptor. We believe that AMPAKINE compounds hold promise for the treatment of neurological and psychiatric diseases and disorders that are known, or thought, to involve depressed functioning of pathways in the brain that use glutamate as a neurotransmitter. Our most advanced clinical compound is CX1739, which currently is in Phase II clinical development.

The AMPAKINE platform addresses large potential markets. Our business plan involves partnering with larger pharmaceutical companies for research, development, clinical testing, manufacturing and global marketing of specific AMPAKINE compounds for those indications that require sizable, expensive Phase III clinical trials and very large sales forces to achieve significant market penetration. At the same time, we plan to develop compounds internally for a selected set of indications, many of which will allow us to apply for Orphan Drug status. These indications typically require more modest investment in the development stages, follow a quicker regulatory path to approval, and involve a more concentrated and smaller sales force targeted at selected medical centers in the U.S. and Europe. If we are successful in the pursuit of this operating strategy, we may be in a position to contain our costs over the next few years, to maintain our focus on the research and early development of novel pharmaceuticals (where we believe that we have the ability to compete) and eventually to participate more fully in the commercial development of AMPAKINE products in the United States.

In March 2010, we entered into an asset purchase agreement with Biovail Laboratories International SRL, or Biovail. Pursuant to the asset purchase agreement, Biovail acquired our interests in CX717, CX1763, CX1942 and the injectable dosage form of CX1739, as well as certain of our other AMPAKINE compounds and related intellectual property for use in the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. In connection with the transaction, Biovail paid us a lump sum of $9,000,000 upon execution of the asset purchase agreement and an additional $1,000,000 upon completion of the specified transfer plan in September 2010.

As part of the transaction, Biovail licensed back to us certain exclusive and irrevocable rights to some acquired AMPAKINE compounds, other than CX717, an injectable dosage form of CX1739, CX1763 and CX1942, for use outside of the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. Accordingly, following the transaction with Biovail, we retain rights for the majority of patented compounds in our AMPAKINE drug library, as well as all rights to the non-acquired AMPAKINE compounds for the treatment of neurological diseases and psychiatric disorders that have historically been a focus of our portfolio. Additionally, we retain our rights to develop and commercialize AMPAKINE compounds as a potential treatment for sleep apnea disorders, including an oral dosage form of CX1739. In September 2010, Biovail merged with Valeant Pharmaceuticals International, Inc., or Valeant. As a result of the merger and changes in strategic directions for the combined company, Valeant announced its intent to exit several therapeutic development programs, including the respiratory depression project acquired from us. We are in discussions with Valeant regarding the future of the project and under our agreement with Biovail, all contractual obligations remain in place.

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For a more complete description of our business, please see Business, beginning on page 27.

An investment in the securities of the Company is speculative and involves substantial risks. You should read the Risk Factors section of this prospectus for a discussion of certain factors to consider carefully before deciding to invest in the securities of the Company.

Corporate Information

Our principal executive offices are located at 15241 Barranca Parkway, Irvine, California 92618, and our telephone number is (949) 727-3157. Our website is http://www.cortexpharm.com.

The contents of our website are not incorporated by reference into this prospectus.

SUMMARY OF THE OFFERING

Securities Offered:	Up to __ units. Each unit will consist of __ shares of our common stock and __ warrants to purchase up to __ shares of our common stock.
Description of Warrants:	The warrants will be exercisable at any time after the date of issuance and ending on the __ anniversary of the issuance date at an exercise price of $____ per share. This prospectus also relates to the offering of the shares of common stock issuable upon exercise of the warrants.
Common stock outstanding prior to this offering:	78,858,197 shares.
Common stock to be outstanding after this offering:	_____ shares.
Use of proceeds:	The net proceeds from this offering will be added to our working capital and used to accelerate the development of our AMPAKINE technology, licensing activities, working capital, capital expenditures and other general corporate purposes. Please see Use of Proceeds on page 11.
Risk Factors:	An investment in our securities is speculative and involves substantial risks. You should read the Risk Factors section of this prospectus beginning on page 4 to consider carefully before deciding to invest in our securities.
OTC Bulletin Board Symbol:	CORX.OB

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The number of shares of our common stock that will be outstanding immediately after the offering is based on 78,858,197 shares outstanding as of September 30, 2010. Unless we specifically state otherwise, the share information in this prospectus excludes:

- 12,553,089 shares of common stock issuable upon the exercise of stock options outstanding prior to this offering under our equity incentive plans, at a weighted average exercise price of $1.32 per share;
- 2,897,178 shares of common stock available for future grants under our equity incentive plans;
- 350,000 shares of common stock issuable upon the exercise of stock options outstanding prior to this offering granted outside of our equity incentive plans, at a weighted average exercise price of $2.59 per share;
- 3,679 shares of common stock issuable upon the conversion of outstanding Series B convertible preferred stock, at a conversion price of $6.795 per share;
- 24,126,952 shares of common stock issuable upon the exercise of warrants outstanding prior to this offering, at a weighted average exercise price of $0.74 per share;
- _____ shares of common stock issuable upon the exercise of warrants to be issued to purchasers in this offering, at an exercise price of $____ per share; and
- _____ shares of 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.

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RISK FACTORS

Your investment in our securities involves a high degree of risk. You should consider the risks described below and the other information contained in this prospectus carefully before deciding to invest in our securities. If any of the following risks actually occur, our business, financial condition, cash flow and operating results could be harmed. As a result, the trading price of our common stock and the value of the securities offered could decline, and you could lose a part or all of your investment.

Risks Related To Our Business

We have a history of net losses; we expect to continue to incur net losses and we may never achieve or maintain profitability.

Since our formation on February 10, 1987 through the quarter ended September 30, 2010, we have generated only modest operating revenues and we have incurred net losses approximating $113,151,000. For the nine months ended September 30, 2010, our net income was approximately $2,613,000, due primarily to revenues from our March 2010 sale of select AMPAKINE assets to Biovail. For the fiscal years ended December 31, 2009, 2008 and 2007, our net losses were approximately $8,441,000, $14,596,000, and $12,969,000, respectively. As of September 30, 2010, we had an accumulated deficit of approximately $117,530,000. We have not generated any revenue from product sales to date, and it is possible that we will never generate revenues from product sales in the future. Even if we do achieve significant revenues from product sales, we expect to incur significant operating losses over the next several years. As with other companies in the biotechnology industry, it is possible that we will never achieve profitable operations.

We will need additional capital in the future and, if such capital is not available on terms acceptable to us or available to us at all, we may need to scale back our research and development efforts and may be unable to continue our business operations.

We will require substantial additional funds to advance our research and development programs and to continue our operations, particularly if we decide to independently conduct later-stage clinical testing and apply for regulatory approval of any of our proposed products, and if we decide to independently undertake the marketing and promotion of our products. Additionally, we may require additional funds in the event that we decide to pursue strategic acquisitions of or licenses for other products or businesses. Based on our current operating plan, including planned clinical trials and other product research and development costs, we estimate that our existing cash resources will be sufficient to meet our requirements into the second quarter of 2011. We believe that we will require additional capital to fund on-going operations beyond that time. Additional funds may result from milestone payments related to our agreements with Les Laboratoires Servier, or Servier, and Biovail, but there is no assurance that we will receive such milestone payments within the desired timeframe, or if such payments will be received at all. Additional funds also may result from the exercise of warrants to purchase shares of our common stock. As of September 30, 2010, warrants to purchase up to approximately 24.1 million shares of our common stock were outstanding at exercise prices ranging from $0.21 to $3.96 per share. If these warrants are fully exercised, of which there can be no assurance, such exercise would provide approximately $17,800,000 of additional capital.

Our cash requirements in the future may differ significantly from our current estimates, depending on a number of factors, including:

- the results of our clinical trials;
- the time and costs involved in obtaining regulatory approvals;
- the costs of setting up and operating our own marketing and sales organization;
- the ability to obtain funding under contractual and licensing agreements;

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the costs involved in obtaining and enforcing patents or any litigation by third parties regarding intellectual property; and

our success in entering into collaborative relationships with other parties.

To finance our future activities, we may seek funds through additional rounds of financing, including private or public equity or debt offerings and collaborative arrangements with corporate partners. We cannot say with any certainty that we will be able to obtain the additional needed funds on reasonable terms, or at all. The sale of additional equity or convertible debt securities could result in additional dilution to our stockholders. If we issued preferred equity or debt securities, these securities could have rights superior to holders of our common stock, and such instruments entered into in connection with the issuance of securities could contain covenants that will restrict our operations. We might have to obtain funds through arrangements with collaborative partners or others that may require us to relinquish rights to our technologies, product candidates or products that we otherwise would not relinquish. As previously announced, in early March 2009, we reduced our workforce in an effort to conserve our capital resources. If adequate funds are not available in the future, as required, we could lose our key employees and might have to further delay, scale back or eliminate one or more of our research and development programs, which would impair our future prospects. In addition, we may be unable to meet our research spending obligations under our existing licensing agreements and may be unable to continue our business operations.

Our products rely on licenses from research institutions and if we lose access to these technologies or applications, our business would be substantially impaired.

Under our agreements with The Regents of the University of California, we have exclusive rights to AMPAKINE compounds for all applications for which the University has patent rights, other than endocrine modulation and except for Biovail s limited rights described below.

In connection with our March 2010 transaction with Biovail, we consented to The Regents of the University of California providing Biovail a non-exclusive license to the University s patent rights for AMPAKINE compounds for use in the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease.

Under a patent license agreement with The Governors of the University of Alberta, we had exclusive rights to the use of AMPAKINE compounds to prevent and treat respiratory depression induced by opiate analgesics, barbiturates and anesthetic and sedative agents. In connection with our transaction with Biovail, we assigned our rights under our patent license agreement with the University of Alberta to Biovail. However, we retained our ability to continue to pursue AMPAKINE compounds as a potential treatment for sleep apnea disorders.

Our rights to certain of the AMPAKINE compounds are secured by patents or patent applications owned wholly by The Regents of the University of California or by the University as a co-owner with us. Our existing agreements with The Regents of the University of California require the University to prepare, file, prosecute and maintain patent applications related to our licensed rights at our expense. Such agreements also require us to make certain minimum annual payments, meet certain milestones or diligently seek to commercialize the underlying technology.

Under such agreements, we are required to make minimum annual royalty payments of approximately $70,000. Separately, we are required to spend a minimum of $250,000 per year to advance the AMPAKINE compounds until we begin marketing an AMPAKINE compound. The commercialization efforts in the agreements require us to file for regulatory approval of an AMPAKINE compound before October 2012.

Although we currently are in compliance with our obligations under the agreements with The Regents of the University of California, including minimum annual payments and diligence milestones, our failure to meet any of these requirements could allow the University to terminate that particular agreement. Management believes that it maintains a strong relationship with The Regents of the University of California.

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We are at an early stage of development and we may not be able to successfully develop and commercialize our products and technologies.

The development of AMPAKINE products is subject to the risks of failure commonly experienced in the development of products based upon innovative technologies and the expense and difficulty of obtaining approvals from regulatory agencies. Drug discovery and development is time consuming, expensive and unpredictable. On average, only one out of many thousands of chemical compounds discovered by researchers proves to be both medically effective and safe enough to become an approved medicine. In the fields that we target, approximately one in five compounds placed in clinical trials generally reaches the market. All of our proposed products are in the preclinical or early clinical stage of development and will require significant additional funding for research, development and clinical testing before we are able to submit them to any of the regulatory agencies for clearances for commercial use. Our trials that are subject to our collaborative research arrangements are being funded by third parties and do not involve financial commitments from us.

The process from discovery to development to regulatory approval can take several years and drug candidates can fail at any stage of the process. Late stage clinical trials often fail to replicate results achieved in earlier studies. Historically, in our industry more than half of all compounds in development failed during Phase II trials and 30% failed during Phase III trials. We cannot assure you that we will be able to complete successfully any of our research and development activities. Even if we do complete them, we may not be able to market successfully any of the products or be able to obtain the necessary regulatory approvals or assure that healthcare providers and payors will accept our products. We also face the risk that any or all of our products will not work as intended or that they will be unsafe, or that, even if they do work and are safe, that our products will be uneconomical to manufacture and market on a large scale. Due to the extended testing and regulatory review process required before we can obtain marketing clearance, we do not expect to be able to commercialize any therapeutic drug for several years, either directly or through our corporate partners or licensees.

We may not be able to enter into the strategic alliances necessary to fully develop and commercialize our products and technologies, and we will be dependent on our corporate partners if we do.

In addition to our agreements with Servier and Biovail, we are seeking other pharmaceutical company partners to develop other major indications for the AMPAKINE compounds. These agreements would potentially provide us with additional funds in exchange for exclusive or non-exclusive license or other rights to the technologies and products that we are currently developing. Competition between biopharmaceutical companies for these types of arrangements is intense. Although we have been engaged in discussions with candidate companies for some time, we cannot give any assurance that these discussions will result in an agreement or agreements in a timely manner, or at all. Additionally, we cannot assure you that any resulting agreement will generate sufficient revenues to offset our operating expenses and longer-term funding requirements.

If we are unable to maintain our relationships with academic consultants and the University of California, Irvine, our business could suffer.

We depend upon our relationships with academic consultants, particularly Dr. Gary S. Lynch of the University of California, Irvine. In addition, we sponsored preclinical research in Dr. Lynch s laboratories at the University of California, Irvine that is part of our product development and corporate partnering profile. If our relationship with Dr. Lynch or the University of California, Irvine, is disrupted, our AMPA- receptor research program could be adversely affected. The term of our consulting agreement with Dr. Lynch commenced in November 1987 and will continue until terminated by either party to the agreement upon at least 60 days prior written notice to the other party. Our agreements with our other consultants are generally also terminable by the consultant on short notice.

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Risks Related to Our Industry

If we fail to secure adequate intellectual property protection, it could significantly harm our financial results and ability to compete.

Our success will depend, in part, on our ability to get patent protection for our products and processes in the U.S. and elsewhere. We have filed and intend to continue to file patent applications as we need them. However, additional patents that may issue from any of these applications may not be sufficiently broad to protect our technology. Also, any patents issued to us or licensed by us may be designed around or challenged by others, and if such challenge is successful, it may diminish our rights.

If we are unable to obtain sufficient protection of our proprietary rights in our products or processes prior to or after obtaining regulatory clearances, our competitors may be able to obtain regulatory clearance and market competing products by demonstrating the equivalency of their products to our products. If they are successful at demonstrating the equivalency between the products, our competitors would not have to conduct the same lengthy clinical tests that we have conducted.

We also rely on trade secrets and confidential information that we try to protect by entering into confidentiality agreements with other parties. Those confidentiality agreements may be breached, and our remedies may be insufficient to protect the confidential information. Further, our competitors may independently learn our trade secrets or develop similar or superior technologies. To the extent that our consultants, key employees or others apply technological information independently developed by them or by others to our projects, disputes may arise regarding the proprietary rights to such information. We cannot assure you that such disputes will be resolved in our favor.

We may be subject to potential product liability claims. One or more successful claims brought against us could materially impact our business and financial condition.

The clinical testing, manufacturing and marketing of our products may expose us to product liability claims. We maintain liability insurance with coverage limits of $10 million per occurrence and $10 million in the annual aggregate. We have never been subject to a product liability claim, and we require each patient in our clinical trials to sign an informed consent agreement that describes the risks related to the trials, but we cannot assure you that the coverage limits of our insurance policies will be adequate or that one or more successful claims brought against us would not have a material adverse effect on our business, financial condition and result of operations. Further, if one of our AMPAKINE compounds is approved by the FDA for marketing, we cannot assure you that adequate product liability insurance will be available, or if available, that it will be available at a reasonable cost. Any adverse outcome resulting from a product liability claim could have a material adverse effect on our business, financial condition and results of operations.

We face intense competition that could result in products that are superior to the products that we are developing.

Our business is characterized by intensive research efforts. Our competitors include many companies, research institutes and universities that are working in a number of pharmaceutical or biotechnology disciplines to develop therapeutic products similar to those we are currently investigating. For example, the Pharmaceutical Research and Manufacturers of America recently estimated that more than 100 pharmaceutical and biotechnology companies are conducting research in the field of neurological disorders, with over 25 drugs under clinical investigation in the U.S. for the treatment of Alzheimer s disease. Virtually all of the major multinational pharmaceutical companies have active projects in these areas. Most of these competitors have substantially greater financial, technical, manufacturing, marketing, distribution and/or other resources than we do. In addition, many of our competitors have experience in performing human clinical trials of new or improved therapeutic products and obtaining approvals from the FDA and other regulatory agencies. We have no experience in conducting and managing later-stage clinical testing or in preparing applications necessary to obtain regulatory approvals. Accordingly, it is possible that our competitors may succeed in developing products that are safer or more effective than those that we are developing and may obtain FDA approvals for their products faster than we can. We expect that competition in this field will continue to intensify.

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We may be unable to recruit and retain our senior management and other key technical personnel on whom we are dependent.

We are highly dependent upon senior management and key technical personnel and currently do not carry any insurance policies on such persons. In particular, we are highly dependent on our Executive Chairman, Roger G. Stoll, Ph.D.; our President and Chief Executive Officer, Mark A. Varney, Ph.D.; our Vice President of Preclinical Development, Steven A. Johnson, Ph.D.; and our Senior Director of Medicinal Chemistry, Leslie J. Street, Ph.D., all of whom have entered into employment agreements with us. Competition for qualified employees among pharmaceutical and biotechnology companies is intense. The loss of any of our senior management, or our inability to attract, retain and motivate the additional highly-skilled employees and consultants that our business requires, could substantially hurt our business and prospects.

The regulatory approval process is expensive, time consuming, uncertain and may prevent us from obtaining required approvals for the commercialization of some of our products.

The FDA and other similar agencies in foreign countries have substantial requirements for therapeutic products. Such requirements often involve lengthy and detailed laboratory, clinical and post-clinical testing procedures and are expensive to complete. It often takes companies many years to satisfy these requirements, depending on the complexity and novelty of the product. The review process is also extensive, which may delay the approval process even more. According to the Pharmaceutical Research and Manufacturers of America, historically the cost of developing a new pharmaceutical from discovery to approval was approximately $800 million, and this amount is expected to increase annually.

As of yet, we have not obtained any approvals to market our products. Further, we cannot assure you that the FDA or other regulatory agency will grant us approval for any of our products on a timely basis, if at all. Even if regulatory clearances are obtained, a marketed product is subject to continual review, and later discovery of previously unknown problems may result in restrictions on marketing or withdrawal of the product from the market.

Risks Related To Our Securities

Our stock price may be volatile and our common stock could decline in value.

Our common stock is currently quoted on the OTC Bulletin Board and is not actively traded, which may increase price quotation volatility and could limit the liquidity of the common stock, all of which may adversely affect the market price of the common stock and our ability to raise additional capital.

The market price of securities of life sciences companies in general has been very unpredictable. The range of sales prices of our common stock for the fiscal years ended December 31, 2010, 2009 and 2008, as quoted on the Over the Counter Bulletin Board and NYSE Amex (formerly The American Stock Exchange), was $0.09 to $0.25, $0.07 to $0.63, and $0.41 to $1.24, respectively. The following factors, in addition to factors that affect that market generally, could significantly impact our business, and the market price of our common stock could decline:

- competitors announcing technological innovations or new commercial products;
- competitors publicity regarding actual or potential products under development;
- regulatory developments in the U.S. and foreign countries;
- developments concerning proprietary rights, including patent litigation;
- public concern over the safety of therapeutic products; and
- changes in healthcare reimbursement policies and healthcare regulations.

You may experience dilution of your ownership interests because of the future issuance of additional shares of our common stock.

As of September 30, 2010, we had approximately 78.9 million shares of our common stock outstanding.

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If all warrants and options outstanding as of September 30, 2010 are exercised prior to their expiration, up to approximately 37 million additional shares of our common stock could become freely tradable. Sales of substantial amounts of common stock in the public market, or the perception that such sales could occur, could adversely affect the prevailing market price of our common stock and could also make it more difficult for us to raise funds through future offerings of common stock.

Our charter document and shareholder rights plan may prevent or delay an attempt by our stockholders to replace or remove management.

Certain provisions of our second restated certificate of incorporation could make it more difficult for a third party to acquire control of us, even if such change in control would be beneficial to our stockholders. Our second restated certificate of incorporation allows our Board of Directors, referred to as the Board or Board of Directors, to issue up to 3,507,500 shares of preferred stock without stockholder approval. Pursuant to this authority, in February 2002 our Board of Directors adopted a shareholder rights plan and declared a dividend of a right to purchase one one-thousandth of a share of preferred stock for each outstanding share of our common stock. The ability of our Board of Directors to issue additional preferred stock and our shareholder rights plan may have the effect of delaying or preventing an attempt by our stockholders to replace or remove existing directors and management.

Applicable SEC rules governing the trading of penny stocks limits the trading and liquidity of our common stock which may affect the trading price of our common stock.

Our common stock is currently quoted on the OTC Bulletin Board, and trades below $5.00 per share; therefore, the common stock is considered a penny stock and subject to SEC rules and regulations which impose limitations upon the manner in which such shares may be publicly traded. These regulations require the delivery, before any transaction involving a penny stock, of a disclosure explaining the penny stock market and the associated risks. Under these regulations, certain brokers who recommend such securities to persons other than established customers or certain accredited investors must make a special written suitability determination regarding such purchaser and receive such purchaser s written agreement of a transaction before a sale. In addition, margin regulations prevent low-priced stocks such as ours from being used as collateral for brokers margin loans to investors. These regulations have the effect of limiting the trading activity of our common stock and reducing the liquidity of an investment in our common stock.

We do not expect any cash dividends to be paid on our common stock in the foreseeable future.

We have never declared or paid a cash dividend on our common stock, and we do not anticipate such a declaration or payment for the foreseeable future. We expect to use future earnings, if any, to fund business growth. Consequently, stockholders only opportunity to achieve a return on your investment is if the price of our common stock appreciates and they sell their shares at a profit. We cannot assure stockholders of a positive return on their investment when they sell their shares, nor can we assure that stockholders will not lose the entire amount of their investment.

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 in which you disagree.

We have not allocated specific amounts of the net proceeds from this offering for any specific purpose. 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 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 invested in a way that does not yield a favorable, or any, return for us. The failure of our management to use such funds effectively could have a material adverse effect on our business, financial condition, operating results and cash flow.

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You will experience immediate and substantial dilution as a result of this offering.

You will incur immediate and substantial dilution as a result of this offering. After giving effect to the sale by us of up to _____ units offered in this offering at an assumed offering price of $____ per unit, and after deducting the placement agent fees and estimated offering expenses payable by us, investors in this offering can expect an immediate dilution of $____ per share, or __%, at the assumed public offering price, assuming no exercise of the warrants. See Dilution on page 14 for a more detailed discussion of the dilution you will incur in this offering.

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CAUTION REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements contained or incorporated by reference in this prospectus are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and we intend that such forward-looking statements be subject to the safe harbors created thereby. These statements are based on the current expectations, forecasts, and assumptions of our management and are subject to various risks and uncertainties that could cause our actual results to differ materially from those expressed or implied by the forward-looking statements. Forward-looking statements are sometimes identified by language such as believes, anticipates, estimates, expects, plans, intends, projects, future and similar expressions and may also include references to plans, strategies, objectives, anticipated future performance as well as other statements that are not strictly historical in nature. The risks, uncertainties, and other factors that could cause our actual results to differ materially from those expressed or implied in this prospectus include, but are not limited to, those noted under the caption Risk Factors beginning on page 4 of this prospectus. Readers should carefully review this information as well the risks and other uncertainties described in other filings we may make after the date of this prospectus with the Securities and Exchange Commission.

Readers are cautioned not to place undue reliance on forward-looking statements. They reflect opinions, assumptions, and estimates only as of the date they were made, and we undertake no obligation to publicly update or revise any forward-looking statements in this prospectus, whether as a result of new information, future events or circumstances, or otherwise.

USE OF PROCEEDS

We estimate that the net proceeds of this offering, after deducting placements agent fees and our estimated offering expenses, and excluding the proceeds, if any, from the exercise of the warrants issued in this offering, will be approximately $____ if we sell the maximum number of units.

We currently intend to use the net proceeds from this offering for working capital and for general corporate purposes, which may include, among other things, funding development of our AMPAKINE technology, licensing activities and capital expenditures.

We cannot estimate precisely the allocation of the net proceeds from this offering among these uses. The amounts and timing of the expenditures may vary significantly, depending on numerous factors, including the progress of our clinical trials and other development efforts as well as the amount of cash used in our operations. Accordingly, our management will have broad discretion in the application of the net proceeds of this offering. We reserve the right to change the use of proceeds as a result of certain contingencies such as competitive developments, opportunities to acquire technologies or products and other factors. Pending the uses described above, we may temporarily invest the net proceeds of this offering in short- and medium-term interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

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MARKET FOR REGISTRANT S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Market Information

Effective December 4, 2009, our common stock began quoting on the Over the Counter Bulletin Board, referred to as OTC Bulletin Board or OTCBB, under the symbol CORX.OB . Prior to that date, our common stock traded on the NYSE Amex (formerly The American Stock Exchange) under the symbol COR . The following table presents quarterly information on the high and low sales prices of the common stock for the fiscal years ended December 31, 2011 (through January 19, 2011, December 31, 2010 and 2009, as furnished by the OTCBB or NYSE Amex, as applicable. The quotations on the OTCBB reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not necessarily represent actual transactions.

	High	Low
Fiscal Year ended December 31, 2011		
First Quarter (through January 19, 2011)	$ 0.19	$ 0.17
Fiscal Year ended December 31, 2010		
Fourth Quarter	$ 0.21	$ 0.15
Third Quarter	0.18	0.14
Second Quarter	0.24	0.16
First Quarter	0.25	0.09
Fiscal Year ended December 31, 2009		
Fourth Quarter	$ 0.22	$ 0.07
Third Quarter	0.32	0.18
Second Quarter	0.44	0.19
First Quarter	0.63	0.25

The high and low sales prices for our common stock on January 19, 2011, as quoted on the OTCBB, were $0.17 and $0.19, respectively.

Holders

As of January 13, 2011, there were 402 record holders of our common stock, and approximately 10,000 beneficial owners.

Dividends

We have never paid or declared any cash dividends on our common stock. We currently intend to retain any future earnings to finance the growth and development of our business, and we do not expect to pay any cash dividends on our common stock in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our Board of Directors and will depend on our financial condition, results of operations, capital requirements, restrictions under Delaware law and in current or future financing instruments and other factors our Board of Directors deems relevant.

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CAPITALIZATION

The following table sets forth our capitalization as of September 30, 2010:

- on an actual basis; and
- on an as adjusted basis to reflect our sale of the __ units offered by us at an assumed public offering price of $____ per unit, after deducting estimated placement agent discounts and commissions and estimated offering costs payable by us.

You should read the following table in conjunction with Management s Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and related notes included elsewhere in this prospectus.

	As of September 30, 2010	
	Actual	Pro Forma
	(unaudited)	
	(in thousands, except share data)	
Cash and cash equivalents and short-term investments	$ 4,508	$
Long-term obligations, less current portion	$ 19	$
Stockholders equity:		
Common stock; $0.001 par value per share; 205,000,000 shares authorized and 78,858,197 issued and outstanding, actual; 205,000,000 shares authorized and _____ shares issued and outstanding, pro forma as adjusted	79	
Preferred stock; $0.001 par value per share; 5,000,000 shares authorized and 37,500 issued and outstanding, actual	21	
Additional paid-in capital	120,774	
Unrealized gain, available for sale marketable securities	1	
Deficit accumulated during development stage	(117,530)	
Total stockholders equity (deficit)	3,345	
Total capitalization	$ 3,364	$

The table above excludes:

- 12,553,089 shares of common stock issuable upon the exercise of stock options outstanding prior to this offering under our equity incentive plans, at a weighted average exercise price of $1.32 per share;
- 2,897,178 shares of common stock available for future grants under our equity incentive plans;
- 350,000 shares of common stock issuable upon the exercise of stock options outstanding prior to this offering granted outside of our equity incentive plans, at a weighted average exercise price of $2.59 per share;

3,679 shares of common stock issuable upon the conversion of outstanding Series B convertible preferred stock, at a conversion price of $6.795 per share;

24,126,952 shares of common stock issuable upon the exercise of warrants outstanding prior to this offering, at a weighted average exercise price of $0.74 per share;

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

_____ shares of 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.

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DILUTION

Purchasers of units offered by this prospectus will suffer immediate and substantial dilution in the net tangible book value per share of common stock. Our net tangible book value as of September 30, 2010 was approximately $3,345,000, or approximately $0.04 per share of common stock. Net tangible book value per share represents the amount of total tangible assets less total liabilities, divided by the number of shares of our common stock outstanding as of September 30, 2010.

Dilution in net tangible book value per share represents the difference between the amount per unit paid by purchasers in this offering, assuming no value is attributed to the warrants, and the net tangible book value per share of our common stock immediately after this offering. After giving effect to our sale of ____ units in this offering at an assumed public offering price of $____, and after deducting the placement agent fees and estimated offering expenses payable by us, our net tangible book value as of September 30, 2010 would have been approximately $____, or $____ per share of common stock. This represents an immediate increase of $____ in net tangible book value per share of common stock to our existing stockholders and an immediate dilution in net tangible book value of ____ per share of common stock to purchasers of units in this offering. The following table illustrates this per share dilution:

Assumed public offering price per unit	
Net tangible book value per share as of September 30, 2010	$ 0.04
Increase in net tangible book value per share attributable to this offering	
Net tangible book value per share as of September 30, 2010, after giving effect to this offering	
Dilution in net tangible book value per share to new investors	

Investors may experience additional dilution upon exercise of the warrants offered by us.

The above table is based on 78,858,197 shares of our common stock outstanding as of September 30, 2010 and excludes, as of September 30, 2010:

- 12,533,089 shares of common stock issuable upon the exercise of stock options outstanding prior to this offering under our equity incentive plans, at a weighted average exercise price of $1.32 per share;
- 2,897,178 shares of common stock available for future grants under our equity incentive plans;
- 350,000 shares of common stock issuable upon the exercise of stock options outstanding prior to this offering granted outside of our equity incentive plans, at a weighted average exercise price of $2.59 per share;
- 3,679 shares of common stock issuable upon the conversion of outstanding Series B convertible preferred stock, at a conversion price of $6.795 per share;
- 24,126,952 shares of common stock issuable upon the exercise of warrants outstanding prior to this offering, at a weighted average exercise price of $0.74 per share;
- _____ shares of common stock issuable upon the exercise of warrants to be issued to purchasers in this offering, at an exercise price of $____ per share; and

_____ shares of 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 existing options or warrants are exercised, new options are issued under our equity incentive plans, or we otherwise issue additional shares of common stock in the future, there may be further dilution to new investors in this offering.

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MANAGEMENT S DISCUSSION AND ANALYSIS OF

FINANCIAL CONDITION AND RESULTS OF OPERATIONS

About Cortex Pharmaceuticals

We are engaged in the discovery and development of innovative pharmaceuticals for the treatment of psychiatric disorders, neurological diseases and sleep apnea. Our primary focus is to develop novel small molecules that positively modulate AMPA-type glutamate receptors, a complex of proteins involved in communication between nerve cells in the mammalian brain. We are developing a family of proprietary pharmaceuticals known as AMPAKINE® compounds, which enhance the activity of the AMPA receptor. We believe that AMPAKINE compounds hold promise for the treatment of neurological and psychiatric diseases and disorders that are known, or thought, to involve depressed functioning of pathways in the brain that use glutamate as a neurotransmitter. Our most advanced clinical compound is CX1739, which currently is in Phase II clinical development.

We previously reported statistically and clinically positive results with CX717 in the treatment of adult patients with Attention Deficit Hyperactivity Disorder, or ADHD. CX717 was included in the assets acquired by Biovail in March 2010.

Our AMPAKINE compound CX1739 is substantially more potent than CX717 in animal studies. CX1739 has successfully completed human Phase I clinical trials and more recently completed testing in a Phase II trial in the U.K. for the treatment of sleep apnea. We are currently analyzing the results from the sleep apnea trial. Given the positive results previously demonstrated with CX717 in adults with ADHD, we plan to initiate a Phase II study with CX1739 as a potential treatment for ADHD.

Although CX1739 was acquired by Biovail in our March 2010 transaction, certain rights to AMPAKINE compounds sold to Biovail were retained by us through a grant back license from Biovail. Specifically, Biovail s rights to CX1739 are limited to an intravenous dosage form to treat respiratory depression or vaso-occlusive crises associated with sickle cell disease. Consequently, following the transaction we retained our exclusive rights to pursue the development of CX1739 in a non-intravenous dosage form and certain of the other subject AMPAKINE compounds for indications other than the treatment of respiratory depression or vaso-occlusive crises associated with sickle cell disease.

The structure of the transaction with Biovail permits us to pursue the development of CX1739 and certain other of the acquired AMPAKINE compounds as a potential treatment for sleep apnea disorders, ADHD and other indications. Additionally, we retained all composition of matter patent rights for the compounds in the 2007 and 2076 patent series.

Additional drug candidates are being readied for further development, including AMPAKINE compounds CX2007 and CX2076. These compounds exhibit a significantly increased metabolic half-life in animals, which may ultimately result in a once-a-day treatment potential in humans. This further development will be dependent upon obtaining additional financial resources to conduct such studies.

We have filed several new patents for our AMPAKINE compounds that, if granted, will provide patent protection for our new compounds up to 2028.

The AMPAKINE platform addresses large potential markets. Our business plan involves partnering with larger pharmaceutical companies for research, development, clinical testing, manufacturing and global marketing of AMPAKINE compounds for those indications that require sizable, expensive Phase III clinical trials and very large sales forces to achieve significant market penetration.

At the same time, subject to availability of sufficient resources, we plan to develop compounds internally for a selected set of indications, many of which will allow us to apply for orphan drug status. Such designation by the Food and Drug Administration, or the FDA, is usually applied to products where the number of patients in the United States in the given disease category is typically less than 200,000. These orphan drug indications typically require more modest investment in the development stages, follow a quicker regulatory path to approval, and involve a more concentrated and smaller sales force targeted at selected medical centers and a limited number of medical specialists in the United States and Europe.

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In our licensing discussions, we seek to reserve rights that may be viewed as a natural expansion beyond some of the orphan drug uses to selected larger areas of therapy to thereby allow us to potentially further develop our compounds for such larger non-orphan drug indications. If we are successful in the pursuit of this operating strategy, we may be in a position to contain our costs over the next few years, to maintain our focus on the research and early development of novel pharmaceuticals (where we believe that we have the ability to compete) and eventually to participate more fully in the commercial development of AMPAKINE products in the United States.

Critical Accounting Policies and Management Estimates

The SEC defines critical accounting policies as those that are, in management s view, most important to the portrayal of our financial condition and results of operations and most demanding of our judgment. Our discussion and analysis of our financial condition and results of operations are based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosures of contingent assets and liabilities.

We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. This process forms the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Revenue Recognition

We recognize revenue when all four of the following criteria are met: (i) pervasive evidence that an arrangement exists; (ii) delivery of the products and/or services has occurred; (iii) the fees earned can be readily determined; and (iv) collectibility of the fees is reasonably assured.

Amounts received for upfront technology license fees under multiple-element arrangements are deferred and recognized over the period of committed services or performance, if such arrangements require our on-going services or performance.

Revenues from milestone payments are recognized when earned, as evidenced by written acknowledgement from the collaborator, provided that (i) the milestone event is substantive and its achievement was not reasonably assured at the inception of the agreement, and (ii) the Company s performance obligations, if any, after the milestone achievement will continue to be funded by the collaborator at a comparable level to that before the milestone was achieved. If both of these criteria are not met, the milestone payment would be recognized over the remaining minimum period of the Company s performance obligations under the arrangement.

We record grant revenues as the expenses related to the grant projects are incurred. Amounts received under research grants are nonrefundable, regardless of the success of the underlying research, to the extent that such amounts are expended in accordance with the approved grant project.

Employee Stock Options and Stock-Based Compensation

We measure our share-based compensation cost at the grant date based on the estimated value of the award and recognize it as expense over the vesting period. Determining the fair value of share-based awards at the grant date requires judgment in estimating the amount of share-based awards that are expected to be forfeited. If actual results differ significantly from these estimates, stock-based compensation expense and our results of operations could be materially impacted.

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As of September 30, 2010, there was approximately $233,000 of total unrecognized compensation cost related to non-vested share-based compensation arrangements. These non-cash costs are expected to be recognized over a weighted-average period of 1.3 years.

Stock options and warrants issued to our consultants and other non-employees as compensation for services to be provided to us are accounted for based upon the fair value of the services provided or the estimated fair market value of the option or warrant, whichever can be more clearly determined. We recognize this expense over the period the services are provided.

Convertible Debt and Equity Instruments

We review the features of our issued financing instruments to determine whether such instruments are appropriately measured and classified as either debt or equity in our financial statements. Generally, instruments that include a provision that may require settlement in cash are recorded as a liability.

The conversion features within our issued convertible instruments are valued separately from the preferred stock or debt securities. We allocate the proceeds received from a financing transaction that includes a convertible instrument to the convertible preferred stock or debt and any detachable instruments, such as warrants, on a relative fair value basis.

The value allocated to the convertible instrument is used to estimate an effective conversion price for the convertible preferred stock or debt, and to measure the intrinsic value, if any, of the conversion feature on the date that we issue the securities.

The above listing is not intended to be a comprehensive list of all of our accounting policies. In many cases, the accounting treatment of a particular transaction is specifically dictated by accounting principles generally accepted in the United States, with no need for our judgment in their application. There are also areas in which our judgment in selecting any available alternative would not produce a materially different result.

Results of Operations

General

In January 1999, we entered into a research collaboration and exclusive worldwide license agreement with NV Organon, or Organon, to enable Organon to develop and commercialize our AMPAKINE technology for the treatment of schizophrenia and depression. In connection with the agreement, we received payments approximating $14,000,000, including an up-front payment, research support and milestone payments. In November 2007, Organon was acquired by Schering-Plough Corporation. Subsequently, in November 2009, Merck Sharpe & Dohme Corp., or Merck, acquired Schering-Plough Corporation. Following the merger with Schering-Plough, in September 2010 Merck notified us that it would not be proceeding further with the AMPAKINE technology.

As a result, rights to the use of AMPAKINE compounds for the treatment of schizophrenia and depression were returned to us. Merck retains ownership of compounds developed by Organon or developed jointly by Organon and us during the collaboration, but no longer has rights to use our patents or know-how. We are free to pursue strategic opportunities for all of our other AMPAKINE compounds in schizophrenia and depression.

In October 2000, we entered into a research collaboration agreement and a license agreement with Les Laboratoires Servier, or Servier. The agreements will allow Servier to develop and commercialize select AMPAKINE compounds in defined territories of Europe, Asia the Middle East and certain South American countries as a treatment for (i) declines in cognitive performance associated with aging, (ii) neurodegenerative diseases and (iii) anxiety disorders. The indications covered include, but are not limited to, Alzheimer s disease, mild cognitive impairment, sexual dysfunction and the dementia associated with multiple sclerosis and Amyotrophic Lateral Sclerosis. The research collaboration agreement, as amended, included an up-front payment by Servier of $5,000,000 and research support payments of approximately $2,025,000 per year through early December 2006 (subject to us providing agreed-upon levels of research personnel). In early December 2006, we terminated the research collaboration with Servier and as a result the worldwide rights for the AMPAKINE technology for the treatment of neurodegenerative diseases were returned to us, other than three compounds selected by Servier for commercialization in its territory. In November 2010, Servier selected a jointly discovered AMPAKINE compound to advance into Phase I clinical testing. Should the compound be successfully commercialized by Servier, the Company would receive payments based upon key clinical development milestones and royalty payments on sales in licensed territories.

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In March 2010, we entered into an asset purchase agreement with Biovail. Pursuant to the asset purchase agreement, Biovail acquired our interests in CX717, CX1763, CX1942 and the injectable dosage form of CX1739, as well as certain of our other AMPAKINE compounds and related intellectual property for use in the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. In connection with the transaction, Biovail paid us a lump sum of $9,000,000 upon execution of the asset purchase agreement and an additional $1,000,000 upon completion of the specified transfer plan in September 2010. In addition, we will have the right to receive up to three milestone payments in an aggregate amount of up to $15,000,000 plus the reimbursement of certain related expenses, each conditioned upon the occurrence of particular events relating to the clinical development of certain assets that Biovail acquired.

As part of the transaction, Biovail licensed back to us certain exclusive and irrevocable rights to some acquired AMPAKINE compounds, other than CX717, an injectable dosage form of CX1739, CX1763 and CX1942, for use outside of the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. Accordingly, following the transaction with Biovail, we retain rights for the majority of patented compounds in our AMPAKINE drug library, as well as all rights to the non-acquired AMPAKINE compounds for the treatment of neurological diseases and psychiatric disorders that have historically been a focus of our portfolio. Additionally, we retain our rights to develop and commercialize AMPAKINE compounds as a potential treatment for sleep apnea disorders, including an oral dosage form of CX1739.

In September 2010, Biovail merged with Valeant. As a result of Valeant s merger and changes in strategic directions for the combined company, Valeant announced its intent to exit several therapeutic development programs, including the respiratory depression project acquired from the Company. The Company is in discussions with Valeant regarding the future of the project and under the agreement between the Company and Biovail, all contractual obligations remain in place.

From inception (February 10, 1987) through the quarter ended on September 30, 2010, we have sustained losses aggregating approximately $113,151,000. Continuing losses are anticipated over the next several years. During that time, our ongoing operating expenses will only be offset, if at all, by proceeds from governmental and other grants and by possible milestone payments from Servier and Biovail. Ongoing operating expenses may also be funded by payments under planned strategic alliances that we are seeking with other pharmaceutical companies for the clinical development, manufacturing and marketing of our products. The nature and timing of payments to us under the Servier and Biovail agreements or other planned strategic alliances, if and when entered into, are likely to significantly affect our operations and financing activities and to produce substantial period-to-period fluctuations in reported financial results. Over the longer term, we will be dependent upon the successful introduction of a new product into the North American market from our internal development, as well as the successful commercial development of our products by Servier or our other prospective partners to attain profitable operations from royalties or other product-based revenues.

Comparison of the Three Months and Nine Months ended September 30, 2010 and 2009

For the three months ended September 30, 2010, our net loss applicable to common stock of approximately $528,000 compares with a net loss applicable to common stock of approximately $3,243,000 for the corresponding prior year period, a decrease of approximately 84%.

For the nine months ended September 30, 2010, our net income applicable to common stock of approximately $2,613,000 compares with a net loss applicable to common stock of approximately $9,189,000 for the corresponding prior year period.

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Revenues for the current year periods include amounts related to our March 2010 transaction with Biovail. As detailed above, we received $10,000,000 in connection with the transaction, including $9,000,000 upon execution of the asset purchase agreement and an additional $1,000,000 upon completion of the specified transfer plan in September 2010.

Revenues for the current year periods also include amounts awarded by the Michael J. Fox Foundation for Parkinson s Research in July 2010. The related grant will provide funding to test select AMPAKINE compounds for their ability to restore brain function in animal models of Parkinson s disease.

Our research and development expenses for the three-month period ended September 30, 2010 decreased from approximately $846,000 to approximately $777,000, or by 8%, from the corresponding prior year period due to a decrease in non-cash stock compensation charges, as explained more fully below.

For the nine months ended September 30, 2010, our research and development expenses decreased from approximately $4,009,000 to approximately $3,347,000, or by 17%, and included sublicense payments approximating $940,000 related to our transaction with Biovail. Excluding such sublicense payments, our research and development expenses decreased significantly relative to the prior year period due to the reduction in force that we implemented in mid-March 2009 and as a result of decreased clinical development expenses.

Our expenses for the prior year period included amounts for Phase I clinical testing of AMPAKINE CX1739, as well as initiation of a Phase IIa proof of concept study with the compound in sleep apnea. We recently completed testing with the compound in the sleep apnea study and are analyzing the related data. Total external preclinical and clinical development expenses for CX1739 totaled approximately $258,000 and $964,000 for the nine months ended September 30, 2010 and 2009, respectively.

Our AMPAKINE CX717 was included in our transaction that we completed with Biovail in March 2010. External preclinical and clinical development costs for CX717 for the nine months ended September 30, 2010 and 2009 totaled approximately $100,000 and $105,000, respectively, with amounts for the 2010 period reflecting costs triggered by our transaction with Biovail. External preclinical expenses to date through September 30, 2010 for CX717 and CX1739 amounted to approximately $16,000,000 and $3,000,000, respectively.

Other external preclinical expenses for the nine months ended September 30, 2010 and 2009 for less advanced AMPAKINE compounds totaled approximately $30,000 and $15,000, respectively. In total, our external clinical and preclinical expenses for the nine months ended September 30, 2010 and 2009 approximated $388,000 and $1,084,000, respectively.

Amounts incurred for all internal research and development costs, including personnel costs and indirect amounts allocated to research and development, as well as costs for retaining outside experts for consulting and research activities are deemed to benefit the entire AMPAKINE platform and are not separately evaluated by compound. Such costs, excluding amounts for non-cash stock compensation charges, totaled approximately $2,901,000 and $2,703,000 for the nine months ended September 30, 2010 and 2009, respectively.

Of these totals, as mentioned above, amounts for the 2010 period include $940,000 of sublicense fees related to our transaction with Biovail. Other costs related to the access and protection of our AMPAKINE technology totaled approximately $479,000 for the nine months ended September 30, 2010, which amounts were materially consistent with those for the corresponding prior year period. Expenses for personnel, outside experts and consultants approximated $1,100,000 and $1,670,000 for the nine months ended September 30, 2010 and 2009, respectively. For the nine months ended September 30, 2010 and 2009, costs for laboratory facility and supply expenses were approximately $382,000 and $557,000, respectively.

At this time, we are just beginning the clinical development of CX1739 and developing other preclinical backup candidates. As the clinical development of CX1739 expands, our research and development costs are anticipated to increase significantly.

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Our non-cash stock compensation charges related to research and development decreased from approximately $84,000 for the three months ended September 30, 2009 to a credit of approximately $5,000 for the three months ended September 30, 2010. For the nine months ended September 30, 2010, the non-cash stock compensation charges for research and development decreased from approximately $222,000 to approximately $58,000, or by 74%, compared with the corresponding prior year period, reflecting fluctuations in our stock price, the vesting schedules of earlier granted stock options and a decrease in options granted relative to the corresponding prior year period.

Our general and administrative expenses for the three-month period ended September 30, 2010 increased from approximately $883,000 to approximately $947,000, or by 7%, compared to the corresponding prior year period, due primarily to an increased use of advisory consultants to assist us in identifying strategic opportunities for the Company. For the nine months ended September 30, 2010, our general and administrative expenses increased from approximately $2,851,000 to approximately $3,677,000, or by 29% compared to the corresponding prior year period, mostly reflecting legal and investment banking fees related to the March 2010 transaction that we completed with Biovail, along with fees for the increased use of advisory consultants mentioned above.

For the three months ended September 30, 2010, our non-cash stock compensation charges within general and administrative expenses decreased from approximately $116,000 to approximately $62,000, or by 47%, relative to the corresponding prior year period. For the nine months ended September 30, 2010, these charges decreased from approximately $234,000 to approximately $208,000, or by 11%, relative to the corresponding prior year period, primarily due to the vesting schedules of earlier granted options.

Our net interest income for the three months ended September 30, 2010 of approximately $3,000 compares with net interest income of approximately $1,000 for the prior year period. For the nine months ended September 30, 2010, net interest expense of approximately $555,000 compares with net interest income of approximately $18,000 for the corresponding prior year period.

Net interest expense for the nine months ended September 30, 2010 includes interest on our convertible promissory note that we issued to Samyang Optics Co., Ltd., or Samyang, in January 2010, and charges for the amortization of capitalized offering costs and the beneficial conversion feature recorded in connection with the transaction.

Accelerated amortization charges for the offering costs and the beneficial conversion feature were recorded upon Samyang s conversion of the promissory note in June 2010, along with non-cash charges for the allocated value of warrants issued to Samyang upon the note s conversion. See Note 2 of Notes to Condensed Financial Statements, dated September 30, 2010.

The net losses applicable to common stock for the 2009 periods included charges of approximately $832,000 related to the beneficial conversion feature of our 0% Series E Convertible Preferred Stock that we issued in April 2009 and $1,515,000 related to the beneficial conversion feature of our Series F Convertible Preferred Stock that we issued in July 2009. These non-cash charges relate to the accounting requirements for the difference between the fair value of our common stock and the conversion price of the preferred stock on the date the preferred stock was issued.

Comparison of the Years ended December 31, 2009 and 2008

For the fiscal year ended December 31, 2009, our net loss applicable to common stock decreased by 26% to approximately $10,788,000 compared to a net loss applicable to common stock of approximately $14,596,000 for the prior year. Consistent with the prior year, we had no revenues for the year ended December 31, 2009.

The net loss applicable to common stock for the year ended December 31, 2009 includes charges of approximately $2,347,000 related to the beneficial conversion feature of our 0% Series E Convertible Preferred Stock and Series F Convertible Preferred Stock that we issued in April 2009 and July 2009, respectively. These non-cash charges relate to the accounting requirements for the difference between the fair value of our common stock and the effective conversion price of the preferred stock on the date of issuance of the preferred stock. Excluding these non-cash charges, the decrease in net loss applicable to common stock for the year ended December 31, 2009 reflects decreased research and development expenses, as explained more fully below.

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Our research and development expenses for the year ended December 31, 2009 decreased from approximately $10,780,000 to approximately $4,598,000, or by 57% from the prior year. The most significant decrease reflects external expenses during the prior year for clinical studies with AMPAKINE CX717 as a treatment for respiratory depression and preclinical development expenses for our AMPAKINE CX1739, which is now in human clinical testing. More specifically, the development of CX717 was slowed because of some potential preclinical toxicology effects that might limit its clinical applications to very short-term uses in humans. At the same time, we started development of a new compound with longer patent life, CX1739.

The total external preclinical and clinical development expenses for CX717 for the years ended December 31, 2009 and 2008 were approximately $106,000 and $1,473,000, respectively, with amounts for 2008 reflecting the substantial clinical work still underway at that time. For CX1739, total external preclinical and clinical development expenses totaled approximately $1,021,000 and $2,061,000 during the years ended December 31, 2009 and 2008, respectively.

Other external preclinical expenses for the years ended December 31, 2009 and 2008 for less advanced AMPAKINE compounds totaled approximately $16,000 and $337,000, respectively. In total, our external clinical and preclinical expenses for the years ended December 31, 2009 and 2008 approximated $1,143,000 and $3,871,000, respectively.

Amounts incurred for all internal research and development costs, including personnel costs and indirect amounts allocated to research and development, as well as costs for retaining outside experts for consulting and research activities are deemed to benefit the entire AMPAKINE platform and are not separately evaluated by compound. Such costs, excluding amounts for non-cash stock compensation charges, totaled approximately $3,229,000 and $6,187,000 for the years ended December 31, 2009 and 2008, respectively.

Of these totals, for the years ended December 31, 2009 and 2008, expenses for personnel, outside experts and consultants approximated $1,956,000 and $4,331,000, respectively. Salary and related expenses for our research and development personnel decreased relative to the prior year due to expenses for our President and Chief Executive Officer, Dr. Mark Varney. Before his appointment to President and Chief Executive Officer in August 2008, Dr. Varney served as our Chief Scientific Officer and Chief Operating Officer and his salary-related expenses were included in research and development. After his appointment in August 2008, Dr. Varney s salary related expenses have been recorded in general and administrative expenses. Salary and related expenses for our research and development personnel further decreased as a result of our reduction in force that we implemented in mid-March 2009.

Indirect costs allocated to research and development include laboratory facility and supply expenses, along with amounts related to the access and protection of our AMPAKINE technology. For the years ended December 31, 2009 and 2008, laboratory facility and supply expenses totaled approximately $684,000 and $1,272,000, respectively. For the year ended December 31, 2009, costs related to the access and protection of our AMPAKINE technology approximated $589,000 and were materially unchanged from such expenses for the prior year period.

The difference in unallocated costs between 2009 and 2008 reflects the reduction in the clinical development of CX717 and the start-up of the new compound, CX1739, as well as early work on preclinical development of other potential drug candidates. Early preclinical development costs are usually much lower than when a compound is moved into clinical development, where costs to conduct human trials are substantially greater. At this time, we are just beginning the clinical development of CX1739 and developing other preclinical back candidates. As the clinical development of CX1739 expands, our research and development costs are anticipated to increase significantly.

Our non-cash stock compensation charges related to research and development for the year ended December 31, 2009 decreased from approximately $722,000 to approximately $226,000, or by 69% compared to the prior year, as a result of fluctuations in our stock price and the vesting schedules of granted stock options.

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Our general and administrative expenses for the year ended December 31, 2009 decreased from approximately $4,259,000 to approximately $3,737,000, or by 12%, relative to the prior year. The decrease in expenses primarily reflects decreased non-cash stock-based compensation charges, savings from earlier implemented salary reductions for our executive officers and prior year consulting fees for market research in the field of respiratory depression.

Our non-cash stock compensation charges related to general and administration for the year ended December 31, 2009 decreased from approximately $577,000 to approximately $347,000, or by 40%, relative to the prior year, as a result of fluctuations in our stock price.

Net interest income for the year ended December 31, 2009 decreased to approximately $17,000 from approximately $443,000, or by 96%, compared to the prior year due to a decrease in cash available for investing activity.

Comparison of the Years ended December 31, 2008 and 2007

For the fiscal year ended December 31, 2008, our net loss increased by 13% to approximately $14,596,000 compared to a net loss of approximately $12,969,000 for the prior year. Consistent with the prior year, we had no revenues for the year ended December 31, 2008.

Our research and development expenses for the year ended December 31, 2008 increased from approximately $9,327,000 to approximately $10,780,000, or by 16% from the prior year. Most of the increase represented clinical development expenses for our two Phase IIa trials of AMPAKINE CX717 as a treatment for respiratory depression and the initiation of clinical development of AMPAKINE CX1739. Total clinical development expenses for CX717 approximated $1,201,000 and $102,000 for the years ended December 31, 2008 and 2007, respectively. For the same periods, preclinical development expenses for CX717 totaled approximately $272,000 and $415,000, respectively.

Early preclinical and clinical development for CX1739 totaled approximately $2,061,000 and $118,000 for the years ended December 31, 2008 and 2007, respectively. Other external preclinical expenses for less advanced AMPAKINE compounds totaled approximately $337,000 and $1,368,000 for the years ended December 31, 2008 and 2007, respectively.

In total, our external clinical and preclinical expenses for the years ended December 31, 2008 and 2007 approximated $3,871,000 and $2,003,000, respectively.

Amounts incurred for all internal research and development costs, including personnel costs and indirect amounts allocated to research and development, as well as costs for retaining outside experts for consulting and research activities are deemed to benefit the entire AMPAKINE platform and are not separately evaluated by compound. Such costs, excluding amounts for non-cash stock compensation charges, totaled approximately $6,187,000 and $5,953,000 for the years ended December 31, 2008 and 2007, respectively.

Of these totals, for the year ended December 31, 2008 expenses for personnel, outside experts and consultants approximated $4,331,000, and were materially unchanged from such expenses for the prior year period. Indirect costs allocated to research and development include laboratory facility and supply expenses, along with amounts related to the access and protection of our AMPAKINE technology. Costs for laboratory facilities and supply expenses totaled approximately $1,272,000 and $1,152,000 for the years ended December 31, 2008 and 2007, respectively. Expenses related to the access and protection of our AMPAKINE technology amounted to approximately $584,000 and $514,000 for the years ended December 31, 2008 and 2007, respectively.

Our non-cash stock compensation charges related to research and development for the year ended December 31, 2008 decreased from approximately $1,371,000 to approximately $722,000, or by 47%, relative to the prior year, which partially offset our increased clinical development expenses. The decreased non-cash stock compensation charges resulted from fluctuations in our stock price and the vesting schedules of granted stock options.

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Our general and administrative expenses for the year ended December 31, 2008 decreased slightly from approximately $4,320,000 to approximately $4,259,000, or by 1%, compared to the prior year. Our non-cash stock compensation charges produced most of this decrease. Our related charges decreased from approximately $866,000 in the year ended December 31, 2007 to approximately $577,000 in 2008. Increased personnel-related expenses partially offset the decrease and resulted from the appointment of our new President and Chief Executive Officer, Dr. Mark Varney, in mid-August 2008. Dr. Varney s salary and related expenses were previously included in research and development expenses while he served as our former Chief Scientific Officer and Chief Operating Officer.

Net interest income for the year ended December 31, 2008 decreased to approximately $443,000 from approximately $678,000, or by 35%, relative to the prior year, due to a decrease in cash available for investing.

Liquidity and Capital Resources

Sources and Uses of Cash

Pursuant to the terms of our transaction with Biovail in March 2010, Biovail paid us $10,000,000, including $1,000,000 received during the quarter ended September 30, 2010. In addition, we have the right to receive up to three milestone payments in an aggregate amount of up to $15,000,000 plus the reimbursement of certain related expenses, all of which are conditioned upon the occurrence of particular events relating to the clinical development of those certain assets that were transferred to Biovail in connection with the transaction.

Under the agreements signed with Servier in October 2000, as amended to date, in November 2010 Servier selected the jointly discovered high impact AMPAKINE compound, S47445, to advance into Phase I clinical trials. We remain eligible to receive payments based upon defined clinical development milestones of the licensed compound and royalties on sales in licensed territories.

We also may receive proceeds from the exercise of previously issued warrants to purchase shares of our common stock. The table below summarizes the warrants outstanding as of September 30, 2010 that were issued in connection with prior offerings and placements of our common stock.

Date of Issuance	Exercise Price per Share	Number of Warrants Outstanding as of September 30, 2010	Expiration Date	Approximate Potential Proceeds, if Fully Exercised
January 2007[1]	$ 1.66	2,996,927	January 21, 2012	$ 4,975,000
August 2007[1]	$ 2.64	2,830,000	August 28, 2012	$ 7,471,000
August 2007[2]	$ 3.96	176,875	August 28, 2012	$ 700,000
April 2009[1]	$ 0.27	6,941,176	October 17, 2012	$ 1,889,000
April 2009[2]	$ 0.26	433,824	October 17, 2012	$ 113,000
July 2009[1]	$ 0.27	6,060,470	January 31, 2013	$ 1,636,000
July 2009[2]	$ 0.37	606,047	January 31, 2013	$ 222,000
June 2010[1][3]	$ 0.21	4,081,633	June 7, 2012	$ 841,000

(1) Represents warrants issued to the investor(s) in the related transaction.
(2) Represents warrants issued to the placement agent(s) in the related transaction.
(3) See Note 2 to Notes to Condensed Financial Statements, dated September 30, 2010.

The warrants issued to the investor in April 2009 were originally issued at an exercise price of $0.3401 per share. In February 2010, the exercise price of these warrants was reduced to $0.2721 in exchange for the investor s consent and waiver with respect to the Company s completed financing transaction with Samyang in January 2010 (see Note 2 to Notes to Condensed Financial Statements, dated September 30, 2010).

All of the warrants outstanding from the January 2007 transaction provide a call right in our favor to the extent that the closing price of our common stock exceeds $3.35 per share for 13 consecutive trading days, subject to certain circumstances.

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Similarly, subject to certain circumstances, the warrants issued to the investor in the April 2009 and July 2009 transactions provide a call right in our favor to the extent that the closing price of our common stock exceeds $0.68 per share and $0.54 per share, respectively, for 20 consecutive trading days. Warrants issued to the placement agent for the April 2009 and July 2009 transactions provide a call right in our favor to the extent that the closing price of our common stock exceeds $0.52 per share and $0.54 per share, respectively, for 20 consecutive trading days, subject to certain circumstances. Warrants issued to Samyang in connection with the conversion of its promissory note in June 2010 provide a call right in our favor to the extent that the weighted average closing price of our common stock exceeds $0.309 per share for each of ten consecutive trading days, subject to certain circumstances.

None of the warrants detailed above are in-the-money as of September 30, 2010. We can give no assurance that we will receive proceeds from the exercise of any of the outstanding warrants.

As of September 30, 2010, we had cash, cash equivalents and marketable securities totaling approximately $4,508,000 and working capital of approximately $3,047,000. In comparison, as of December 31, 2009, we had cash, cash equivalents and marketable securities of approximately $226,000 and a working capital deficit of approximately $1,976,000. The increases in cash and working capital primarily reflect amounts received from our March 2010 transaction with Biovail, as detailed above, as partially offset by amounts required to fund our operations.

For the nine months ended September 30, 2010, net cash provided by operating activities was approximately $2,810,000 and included our net income for the period of approximately $2,613,000, adjusted for non-cash expenses for depreciation, amortization, warrants and stock compensation approximating $867,000, and changes in operating assets and liabilities. Net cash used in operating activities was approximately $6,003,000 during the nine months ended September 30, 2009, and included our net loss for the period of approximately $6,842,000, adjusted for non-cash expenses for depreciation and stock compensation approximating $602,000, and changes in operating assets and liabilities.

For the nine months ended September 30, 2010, net cash used in investing activities approximated $2,250,000 and primarily represented the purchases of marketable securities, partially offset by some maturities of such marketable securities. Net cash provided by investing activities approximated $2,714,000 during the nine months ended September 30, 2009, and represented the proceeds from the sales and maturities of marketable securities, partially offset by minimal fixed asset purchase and sale activity.

Net cash provided by financing activities approximated $1,472,000 during the nine months ended September 30, 2010 and resulted from our private placement of a convertible promissory note in January 2010. For the nine months ended September 30, 2009, net cash provided by financing activities approximated $2,940,000 due to our registered direct offering of our 0% Series E Convertible Preferred Stock in April 2009 and our private placement of our Series F Convertible Preferred Stock in July 2009.

In October 2010, we were awarded a grant of approximately $245,000 under a program created by the U.S. Congress in the Patient Protection and Affordable Care Act of 2010. The grant reimburses certain qualifying research expenses related to our AMPAKINE CX1739.

Commitments

We lease approximately 32,000 square feet of research laboratory, office and expansion space under an operating lease that expires May 31, 2012. The commitments under the lease agreement for the remaining three months of the year ended December 31, 2010, the year ending December 31, 2011 and the five months ending May 31, 2012 are approximately $141,000, $581,000 and $248,000, respectively.

In addition to amounts reflected on the balance sheet as of September 30, 2010, our remaining commitments for preclinical and clinical studies amount to approximately $423,000, including approximately $155,000 for research related to the grant from the Michael J. Fox Foundation for Parkinson s Research, which costs will be covered by funds awarded but not yet received under the grant.

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In March 2009, each of our executive officers agreed to a 20% reduction in their base salary in an effort to conserve our available financial resources. Following the closing of the transaction with Biovail in March 2010 (see Note 3 to Notes to Condensed Financial Statements, dated September 30, 2010), the Compensation Committee of our Board of Directors approved the reinstatement of the prior base salary for each of the executive officers, effective June 1, 2010. However, the Compensation Committee did not approve the payment of any shortfall in salaries for such executive officers from the time the reductions were implemented to the date the base salary levels were reinstated. Subject to the discretion of the Compensation Committee, it is possible that some of the shortfall amounts will be paid to the executive officers in the future, but the timing and amount of any such payments cannot be reasonably estimated at this time.

In June 2000, we received approximately $247,000 from the Institute for the Study of Aging, or the Institute, a non-profit foundation supported by the Estee Lauder Trust. The advance partially offset our limited costs for our testing in patients with mild cognitive impairment that we conducted with our partner, Servier. Provided that we comply with the conditions of the funding agreement, including the restricted use of the amounts received, we will not be required to repay the advance unless we enter an AMPAKINE compound into Phase III clinical trials for Alzheimer s disease. Upon such potential clinical trials, repayment would include interest computed at a rate equal to one-half of the prime lending rate. In lieu of cash, in the event of repayment the Institute may elect to receive the balance of outstanding principal and accrued interest as shares of our common stock. The conversion price for such form of repayment shall initially equal $4.50 per share, subject to adjustment under certain circumstances.

Staffing

We currently have 11 full-time employees. We do not anticipate significant increases in the number of our full-time employees within the coming year.

Outlook

With the proceeds from our transaction with Biovail in March 2010, as discussed more fully above, we believe that we have adequate financial resources to conduct our operations into the second quarter of 2011. Our forecast of the period of time through which our financial resources will be adequate to support our operations is forward-looking information, and actual results could vary.

Our ongoing cash requirements will depend on numerous factors, particularly the progress of our clinical trials involving CX1739 and our ability to negotiate and complete collaborative agreements or out-licensing arrangements. In order to help fund our on-going operating cash requirements, we intend to seek new collaborations for our low impact and high impact AMPAKINE programs that include initial cash payments and on-going development support. We may also seek to raise additional funds and explore other strategic and financial alternatives, such as a merger or sale of assets transaction.

There are significant uncertainties as to our ability to access potential sources of capital. We may not be able to enter into any collaboration on terms acceptable to us, or at all, due to conditions in the pharmaceutical industry or in the economy in general. Competition for such arrangements is intense, with a large number of biopharmaceutical companies attempting to secure alliances with more established pharmaceutical companies. Although we have been engaged in discussions with candidate companies, there is no assurance that an agreement or agreements will arise from these discussions in a timely manner, or at all, or that revenues that may be generated thereby will offset operating expenses sufficiently to reduce our short-term funding requirements.

Even if we are successful in obtaining a collaboration for our AMPAKINE program, we may have to relinquish rights to technologies, product candidates or markets that we might otherwise seek to develop ourselves. These same risks apply to any attempt to out-license our compounds.

Similarly, due to market conditions and other possible limitations on equity offerings, we may not be able to sell additional securities or raise other funds on terms acceptable to us, if at all. Any additional equity financing, if available, would likely result in substantial dilution to existing stockholders.

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Additional Risks and Uncertainties

Our proposed products are in the preclinical or early clinical stage of development and will require significant further research, development, clinical testing and regulatory clearances. They are subject to the risks of failure inherent in the development of products based on innovative technologies. These risks include, but are not limited to, the possibilities that any or all of the proposed products will be found to be ineffective or unsafe, or otherwise fail to receive necessary regulatory clearances; that the proposed products, although effective, will be uneconomical to market; that third parties may now or in the future hold proprietary rights that preclude us from marketing them; or that third parties will market superior or equivalent products. Accordingly, we are unable to predict whether our research and development activities will result in any commercially viable products or applications. Further, due to the extended testing and regulatory review process required before marketing clearance can be obtained, we do not expect to be able to commercialize any therapeutic drug for at least four years, either directly or through our current or prospective partners or licensees. There can be no assurance that our proposed products will prove to be safe or effective or receive regulatory approvals that are required for commercial sale.

Off-Balance Sheet Arrangements

We have not engaged in any off-balance sheet arrangements within the meaning of Item 303(a)(4)(ii) of Regulation S-K.

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BUSINESS

We were incorporated in Delaware on February 10, 1987 under our original name, X-Age, Inc. On February 8, 2002, we changed our name to Cortex Pharmaceuticals, Inc.

We are engaged in the discovery and development of innovative pharmaceuticals for the treatment of psychiatric disorders and neurological diseases. Our primary focus is to develop novel small molecule compounds that positively modulate AMPA-type glutamate receptors, a complex of proteins involved in the communication between nerve cells in the mammalian brain. These compounds, termed AMPAKINE® compounds, enhance the activity of the AMPA receptor. These molecules are designed and developed as proprietary pharmaceuticals because we believe they hold promise for the treatment of neurological and psychiatric diseases and disorders that are known, or thought, to involve depressed functioning of pathways in the brain that use glutamate as a neurotransmitter. Our most advanced clinical compound is CX1739, which is in Phase II clinical development.

The AMPAKINE platform addresses large potential markets. According to research data from IMS Health, in 2008 worldwide sales for central nervous system products to treat brain-related disorders and diseases exceeded $112 billion. Our business plan involves partnering with larger pharmaceutical companies for research, development, clinical testing, manufacturing and global marketing of specific AMPAKINE compounds for those indications that require sizable, expensive Phase III clinical trials and very large sales forces to achieve significant market penetration. Diseases such as Alzheimer s disease, mild cognitive impairment, or MCI, Attention Deficit Hyperactivity Disorder, or ADHD, schizophrenia, depression, respiratory depression caused by opiate analgesics, and sleep apnea may benefit from treatment with AMPAKINE drugs and require a large market presence.

At the same time, we plan to develop compounds internally for a selected set of indications, some of which will allow us to apply for Orphan Drug status. Such designation by the Food and Drug Administration, or the FDA, is usually applied to products where the number of patients in the United States, or the U.S., in the given disease category is typically less than 200,000. The European Medicines Agency adopted a similar system termed The Regulation of Orphan Medicinal Products. These Orphan Drug indications typically require more modest investment in the development stages, follow a quicker regulatory path to approval, and involve a more concentrated and smaller sales force targeted at selected medical centers in the U.S. and Europe. Such Orphan Drug indications that we plan to pursue internally may include Huntington s disease, Fragile X syndrome and Rett syndrome.

We also may pursue other Orphan Drug indications and upon any related approval, may expand our clinical potential into non-Orphan Drug indications. As an example, if we obtain approval for an indication related to Fragile X syndrome, expansion into treatment of autism-spectrum disorders may follow. While the market potential in the U.S. for most of the listed Orphan Drug indications varies between $100 million and $500 million per indication, we estimate that the consolidated potential for all indications that we may pursue, including expansion into non-Orphan Drug indications, provides us with a market potential of over $3 billion. This amount does not include any revenues from any potential license of our intellectual property. We will continue to seek one or more significant license or collaboration arrangements with larger pharmaceutical companies, while we prepare ourselves for potential entrance into the pharmaceutical market with our own products. These arrangements may permit other applications of the AMPAKINE compounds to be advanced into later stages of clinical development and may provide access to the extensive clinical trials management, manufacturing and marketing expertise of such companies.

In January 1999, we entered into a research collaboration and exclusive worldwide license agreement with Organon, at that time a subsidiary of Akzo Nobel. The agreement granted Organon worldwide rights to develop and commercialize our AMPAKINE technology for the treatment of schizophrenia and depression. In November 2007, Organon was acquired by Schering-Plough Corporation. Subsequently, in November 2009, Merck acquired Schering Plough. Following its merger with Shering-Plough, in September 2010 Merck notified us that it would not be proceeding further with the licensed AMPAKINE technology.

As a result, rights to the use of AMPAKINE compounds for the treatment of schizophrenia and depression were returned to us. Merck retains ownership of the compounds developed by Organon or developed jointly by Organon with us during the collaboration, but no longer has license rights to our patents or know-how. We are free to pursue strategic opportunities for all of our other AMPAKINE compounds in schizophrenia and depression.

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In October 2000, we entered into a research collaboration agreement and a license agreement with Servier. The license agreement, as amended to date, will allow Servier to develop and commercialize three AMPAKINE compounds selected at the end of the research collaboration in defined territories of Europe, Asia, the Middle East and certain South American countries as a treatment for (i) declines in cognitive performance associated with aging, (ii) neurodegenerative diseases and (iii) anxiety disorders. The indications covered include, but are not limited to, Alzheimer s disease, MCI, sexual dysfunction and anxiety disorders. The research collaboration with Servier was terminated at the end of 2006; accordingly, the worldwide rights for (a) treatment of declines in cognitive performance associated with aging, (b) neurodegenerative diseases, (c) anxiety disorders, and (d) sexual dysfunction have been returned to us. In November 2010, Servier selected a jointly discovered high impact AMPAKINE compound to advance into Phase I clinical testing. Should the compound be successfully commercialized by Servier, the Company would receive payments based upon key clinical development milestones and royalty payments on sales in licensed territories.

On March 25, 2010, we entered into an asset purchase agreement with Biovail. Pursuant to the asset purchase agreement, Biovail acquired our interests in CX717, CX1763, CX1942 and the injectable dosage form of CX1739, as well as certain of our other AMPAKINE compounds and related intellectual property for use in the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. In connection with the transaction, Biovail paid us the lump sum of $9,000,000 upon the execution of the asset purchase agreement and an additional $1,000,000 upon completion of the specified transfer plan in September 2010. In addition, we will have the right to receive up to three milestone payments in an aggregate amount of up to $15,000,000 plus the reimbursement of certain related expenses, each conditioned upon the occurrence of particular events relating to the clinical development of certain assets that Biovail acquired. As part of the transaction, Biovail licensed back to us certain exclusive and irrevocable rights to some acquired AMPAKINE compounds, other than CX717, an injectable dosage form of CX1739, CX1763 and CX1942, for use outside of the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. Accordingly, following the transaction with Biovail, we retain rights for the majority of patented compounds in our AMPAKINE drug library, as well as all rights to the non-acquired AMPAKINE compounds for the treatment of neurological diseases and psychiatric disorders that have historically been a focus of our portfolio. Additionally, we retain our rights to develop and commercialize AMPAKINE compounds as a potential treatment for sleep apnea disorders, including an oral dosage form of CX1739.

In September 2010, Biovail merged with Valeant. As a result of Valeant s merger and changes in strategic directions for the combined company, Valeant announced its intent to exit several therapeutic development programs, including the respiratory depression project acquired from the Company. The Company is in discussions with Valeant regarding the future of the project and under the agreement between the Company and Biovail, all contractual obligations remain in place.

For the years ended December 31, 2009, 2008 and 2007, our research and development expenses were approximately $4,598,000, $10,780,000 and $9,327,000, respectively. The significant decrease in expenses for the year ended December 31, 2009 reflects our reduction in force that was implemented in March 2009, in an effort to reduce our operating expenses and focus our resources on the clinical development of our AMPAKINE platform. Expenses for the year ended December 31, 2008 reflect an increase in clinical development expenses, including our two Phase IIa studies with CX717 for the acute treatment of respiratory depression induced by an opioid and the initiation of clinical development of CX1739.

We face a number of risks in moving our technology through research, development and commercialization. We have never had revenues from commercial sales, have never been profitable on an annual basis and have incurred cumulative net losses from inception approximating $113,151,000 through September 30, 2010. We do not anticipate profitability in the short term and will continue to require external funding, either from key corporate partnerships and licenses of our technology or from the private or public equity markets, debt from banking arrangements or some combination of these financing vehicles. As of yet, neither we nor any of our corporate partners have obtained regulatory approval to market any of our products. All of these risks, and others, are described in Risk Factors starting on page 4.

Our executive offices are located at 15241 Barranca Parkway, Irvine, California 92618, and our telephone number is (949) 727-3157.

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Our website is www.cortexpharm.com. We make available free of charge through our website our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports as soon as practicable after such material is electronically filed with the Securities and Exchange Commission. The contents of our website are not incorporated by reference into this prospectus.

AMPA Receptor Modulator Program

In June 1993, we licensed a new class of molecules and technology, the AMPAKINE technology, from the University of California. We have subsequently been working to develop and patent new AMPAKINE molecules and to demonstrate efficacy and safety in a number of potential indications.

AMPAKINE compounds facilitate the activity of the AMPA receptor, which is activated by the endogenous neurotransmitter glutamate. The AMPAKINE compounds interact in a highly specific manner with the AMPA receptor, lowering the amount of neurotransmitter required to generate a response, and increasing the magnitude and/or duration of the response to any given amount of glutamate. We believe that this selective amplification of the normal glutamate signal may eventually find utility in the treatment of neurological and psychological diseases and disorders characterized by depressed functioning of brain pathways.

Our AMPAKINE technology is composed of two groups of compounds that we have designated as low impact and high impact. Compounds from these two groups bind at different sites on the AMPA receptor complex and affect the subsequent cellular responses in different ways. Both types of compounds positively modulate the AMPA receptor function; low impact compounds generally increase the amplitude of the neuronal action potential, while the high impact compounds increase both the amplitude and the half-width of the neuronal action potential. Additionally, high impact compounds activate the expression of certain genes in the neuron, including the production of certain growth factors such as Brain-Derived Neurotrophic Factor, or BDNF. BDNF mediates the differentiation and survival of neurons by providing the necessary trophic support, and modulates synaptic transmission and plasticity. We believe that this action of AMPAKINE molecules imparts these compounds with the potential for disease-modifying activity, since deficits in BDNF have been observed in psychiatric diseases such as anxiety and depression, and in neurodegenerative disease such as Alzheimer s disease, Huntington s disease, Parkinson s disease, and Rett s syndrome.

The vast majority of excitatory synaptic connections in the brain utilize glutamate, and those synaptic connections decline with age. Thus, brain disorders associated with aging may be amenable to treatment with AMPAKINE compounds. Such disorders include MCI, Alzheimer s disease and Parkinson s disease. Schizophrenia, depression and other psychiatric disorders may involve imbalances of neurotransmitters in the brain, such as dopamine, serotonin, acetylcholine and norepinephrine. Given that glutamate modulates many of these other neurotransmitters, it may play a role in the rebalancing of neurotransmission.

We continue to design, synthesize and test new AMPAKINE molecules. Significant progress has been made with both our low impact and high impact programs, resulting in the recent filing of patent applications that, if granted, will provide patent protection for our new molecules through 2029.

Low Impact AMPAKINE Platform

Prior to the transaction we entered into with Biovail on March 25, 2010, we had two low impact AMPAKINE compounds being tested in clinical studies: CX717 and CX1739. Following the sale of CX717 to Biovail, our most advanced low impact AMPAKINE compound is CX1739, which is a new generation low impact AMPAKINE molecule. The pending patent application that specifically covers CX1739, if approved, will provide a patent term until 2028.

CX1739 completed pre-clinical safety and toxicology studies in 2008 and, importantly, the toxicological artifact previously observed in animals with CX717 was not seen with CX1739. Phase I clinical studies with CX1739 were initiated in 2008 and completed in early 2009. In the Phase I clinical studies, the safety and tolerability of CX1739 was evaluated in 80 healthy, male volunteers. No changes were seen in vital signs, and there were no cardiovascular changes or changes in blood chemistry at any of the doses tested, including single doses of up to 1200mg and doses of 600mg twice-a-day (for a 1200mg total daily dose) for 7 days. The maximum well-tolerated single dose was identified at 900mg and 450 mg twice-a-day (for a 900mg total daily dose) for 7 days.

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The pharmacokinetic results to date from the volunteers who have taken CX1739 show that the half-life of the drug averages 7.2 hours, and the amount of drug absorbed over the range of 50mg to 1200mg was linear and predictable. Very high plasma drug levels were found in the volunteers, indicating an excellent absorption profile for the drug. In summary, CX1739 exhibited an excellent safety profile in healthy male volunteers.

In early 2009, we initiated a Phase IIa study with CX1739 in a randomized, double-blind, placebo-controlled study in 20 subjects with moderate to severe sleep apnea in the UK. Enrollment in the study was slower than expected due to several factors, including variability in sleep apnea scores, fairly strict enrollment criteria and financial constraints. We recently completed testing in this study and are currently analyzing the related results.

Given the positive results previously demonstrated with CX717 in adults with ADHD, we plan to commence a Phase II study with CX1739 as a potential treatment for ADHD.

Although CX1739 was acquired by Biovail in our March 2010 transaction, certain rights to AMPAKINE compounds sold to Biovail were retained by the Company through a grant back license from Biovail. Specifically, Biovail s rights to CX1739 are limited to an intravenous dosage form to treat respiratory depression or vaso-occlusive crises associated with sickle cell disease. Consequently, following the transaction we retained our exclusive rights to pursue the development of CX1739 in a non-intravenous dosage form and certain of the other subject AMPAKINE compounds for indications other than the treatment of respiratory depression or vaso-occlusive crises associated with sickle cell disease. The structure of the transaction with Biovail permits us to pursue the development of CX1739 and certain other of the acquired AMPAKINE compounds as a potential treatment for sleep apnea disorders, ADHD and other indications.

In-house research activities have led to the identification of a chemically distinct series of low impact AMPAKINE molecules, and in 2008 we filed an application for patent protection for the core scaffold of these molecules. The lead molecules in this series, CX2007 and CX2076, have successfully undergone initial early preclinical testing, and additional resources will be invested in selecting a lead compound from this series for further preclinical and clinical development activities. If the related application is approved, we will have patent protection for this compound series through 2028.

High Impact AMPAKINE Platform

Several of our high impact compounds have been tested in animal behavioral models. In genetic mouse models of Huntington s disease, the high impact molecule CX929 has demonstrated the potential to restore depressed levels of the growth factor BDNF, and improve deficits in a process known as long-term potentiation, a cellular mechanism thought to underlie learning and memory. Furthermore, the use of CX929 to treat these mice has demonstrated an improvement in motor deficits that occur in mice that have not been treated with CX929. This preclinical data suggests that high impact AMPAKINE molecules might have beneficial effects in patients with Huntington s disease.

We have also looked at the effect of AMPAKINE molecules on two different genetically altered mouse models of central nervous system disease: Rett syndrome and Fragile X syndrome. The Rett syndrome mice exhibit many of the same characteristics as the disease that occurs in girls. One aspect of the disease, the irregular breathing patterns with bouts of apnea, is a disturbing aspect of the disease in patients that is also seen in the genetically altered mice. We have found that AMPAKINE molecules can restore the breathing pattern of Rett syndrome mice to a more normal, regular breathing pattern. With regard to mice that demonstrate characteristics of Fragile X syndrome, the current data suggests that AMPAKINE molecules, such as CX929, augment levels of the growth factor BDNF, which could be valuable for correcting abnormalities in dendritic spines and synaptic function associated with Fragile X syndrome.

As noted under the caption Risk Related to Our Business under the Risk Factors section, we are at an early stage of development and we may not be able to successfully develop and commercialize our products and technologies, and there are certain risks related to the development and commercialization of our products, including, without limitation, risks related to our clinical trials.

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Potential Applications for AMPAKINE Compounds

ADHD

ADHD is a common psychiatric disorder in both children and adults. The National Institute of Mental Health, or the NIMH, estimates that ADHD affects three to five percent of school-age children, with about one child in every classroom in the U.S. in need of help for this disorder. ADHD is characterized by inattentiveness, poor impulse control and hyperactivity. Although the disorder has historically been thought of as a childhood illness, longitudinal studies have documented the persistence of symptoms into adulthood in a large percentage of individuals that suffered ADHD as children. The prevalence of ADHD in adults is estimated at between two to four percent. ADHD exacts a significant toll on social relationships, education, and vocational attainment.

Psychostimulants, including amphetamine and methylphenidate, represent the most widely researched and commonly prescribed treatments for ADHD. Based upon research data from IMS Health, psychostimulants accounted for a global market of approximately $5 billion in 2008. Given the availability and frequent prescribing of psychostimulants, concerns over their potential overuse and abuse have intensified. In addition to the potential for abuse with psychostimulants, the use of psychostimulants may result in side effects. According to the National Institutes of Health, some children on these medications may lose weight, have less appetite and temporarily grow more slowly, whereas others may experience problems falling asleep. Given the lack of consistent improvement beyond the disorder s core symptoms and the deficit of long-term studies conducted, the need remains for additional testing with medications and behavioral treatments. Most of the psychostimulants also carry black box warnings related to the cardiovascular risks associated with the increases in blood pressure and heart rate caused by these agents.

We believe that AMPAKINE compounds, such as CX1739, may represent a novel, non-stimulant approach for treating ADHD patients.

Alzheimer s Disease and Mild Cognitive Impairment

Impairment of memory and cognition is a significant health care problem that grows as the elderly population continues to increase. Dementia can be diagnosed in those individuals who develop persistent memory and cognitive deficits as well as in those individuals who suffer from difficulties in their social, occupational and other activities of daily living. With advanced dementia, many elderly individuals become confined to nursing homes because of psychological disorientation and profound functional difficulties. Pharmaceuticals used to alleviate deficits in memory and cognition could potentially enable elderly individuals with dementia to regain some functional abilities that may help them remain independent longer, which may result in an improved quality of life and substantial savings in health care costs.

Alzheimer s disease is the most common form of dementia, currently afflicting approximately four million people in the U.S. and 12 million people worldwide. Unless a treatment for Alzheimer s disease is found, the number of people in the U.S. with the disease is expected to reach 14 million by the middle of this century. According to the Alzheimer s Association, the U.S. spends at least $100 billion a year on costs associated with Alzheimer s disease, at an average lifetime cost per patient of $174,000. Medicare and most private health insurance will not cover all costs associated with the long-term care of an Alzheimer s patient. Accordingly, an effective treatment, even a symptomatic one, likely will have an enormous impact.

We believe that during the early to middle stages of Alzheimer s disease AMPAKINE molecules may play a valuable role in enhancing the effectiveness of the brain cells and brain circuits that have not yet succumbed to the disease. The enhancement AMPAKINE molecules may provide may help to alleviate the memory and cognitive deficits that constitute the major symptoms of Alzheimer s disease.

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There is also a possibility that treatment with high impact AMPAKINE compounds may slow the progression of Alzheimer s disease. Brain cells, or neurons, require continued input from other brain cells to remain alive. As neurons die, other neurons begin to lose their inputs, hastening their own death. AMPAKINE compounds may slow the rate at which functional levels of input from other neurons are lost. In animal models, selected AMPAKINE compounds have been shown to increase the production of BDNF, which is a protein associated with the formation of synapses by neurons. This possible mode of action may also prove beneficial to patients with Alzheimer s disease, although it has not been demonstrated whether the same mechanism may produce similar results in humans.

Patients with MCI represent the earliest clinically-defined group that have memory impairment beyond the level expected for normal individuals of the same age and education, but do not meet the clinical criteria for Alzheimer s disease.

It is estimated that there are between three and four million people with MCI. The memory deficits in the MCI population are clinically discernible and can interfere with daily functioning. MCI patients also appear to have a greatly increased risk of developing Alzheimer s disease; whereas approximately one to two percent of the normal elderly population will be diagnosed with Alzheimer s disease every year, 10-15% or more of MCI patients will progress to Alzheimer s disease per year.

Given the lack of consensus by the FDA on the diagnostic and outcome for success in MCI, we believe that the AMPAKINE compounds must first demonstrate efficacy in treating Alzheimer s disease before undertaking studies to determine the efficacy of the compounds in MCI. Yet, given the potential size of the MCI market, we remain interested in this indication.

Under the agreements that we signed with Servier in October 2000, as amended to date, the collaborative research phase of the agreement ended in December 2006. As a result of this termination, we regained the worldwide rights for the use of AMPAKINE compounds for treatment of (i) declines in cognitive performance associated with aging, (ii) neurodegenerative disorders and (iii) anxiety disorders. Servier subsequently selected three AMPAKINE compounds for potential development and commercialization. In November 2010, Servier selected a jointly discovered high impact AMPAKINE compound to advance into Phase I clinical testing. Should the compound be successfully commercialized by Servier, the Company would receive payments based upon key clinical development milestones and royalty payments on sales in licensed territories.

Depression

It is estimated that major depression affects over 18.8 million people in the U.S. and over 121 million people worldwide, with approximately 20% of the global population at risk of developing major depression at some point in their lives. Women are almost twice as likely to suffer from depression as men (9.5% versus 5.8%), but prevalence figures vary from country to country. Depression costs the U.S. an estimated $44 billion each year. The World Health Organization predicts depression will become the leading cause of disability by the year 2020.

In the U.S., the depression market is considered the largest segment of the central nervous system market with global sales in excess of $20 billion in 2008. This is a mature market with a number of the leading brands facing patent expiration in the next five to six years.

The primary drug therapy for depression is the use of selective serotonin reuptake inhibitors, or SSRIs, such as Prozac, Zoloft, Paxil, Celexa and Lexapro. In addition, dual reuptake inhibitors that also affect norepinephrine, or SNRIs, such as Cymbalta and Effexor, are also commonly prescribed. However, these antidepressant molecules only work for 30% to 45% of the depressed population, and all antidepressants acting via the monoaminergic pathways have received a black box warning from the FDA for suicidality. There is much room for improvement in developing new antidepressants, such as improved efficacy, a faster onset of action (current treatments require 4-6 weeks to see efficacy), and fewer side effects (current treatments produce sexual dysfunction, weight gain, gastrointestinal and sleep disturbances).

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Animal studies have demonstrated antidepressant effects of AMPAKINE molecules. For example, AMPAKINE molecules have demonstrated efficacy comparable to that of SSRI and tricyclic antidepressants in the forced swim and tail suspension tests, both models of behavioral despair. AMPAKINE compounds also produced synergistic effects when combined with clinically effective antidepressants. In the mouse forced swim test, an ineffective dose of the AMPAKINE significantly augmented the potency of several other antidepressant compounds. These observations of synergy are consistent with the idea that AMPAKINE molecules produce their antidepressant-like effects through a mechanism that, although distinct, ultimately converges upon a common final pathway.

Although the SSRIs and SNRIs are widely used today, there is clearly room in the market for new therapies that act via different mechanisms that may address treatment-resistant patients, have a faster onset of action, and do not have the same side-effect profiles.

Schizophrenia

The worldwide incidence of schizophrenia is approximately one percent of the population, regardless of ethnic, cultural or socioeconomic status. Schizophrenia typically develops in late adolescence or early adulthood and involves a collection of symptoms. These are generally characterized as positive symptoms (delusions and hallucinations), negative symptoms (social withdrawal and loss of emotional responsiveness) and cognitive symptoms (disordered thought and attention deficits).

The first conventional anti-psychotics for schizophrenia were developed in the 1950s and 1960s. These drugs helped to reduce the positive symptoms of the disease and greatly reduced the need for chronic hospitalization but can be difficult to use because of safety and tolerability issues. Newer agents achieve good control of positive symptoms, partial control of negative symptoms and better patient compliance with medication due to lower frequency of side effects. However, clinicians agree that there are still substantial side effects and that the cognitive symptoms of schizophrenia are not greatly improved by any available agent. The persistence of cognitive symptoms prevents many patients from successfully reintegrating into society.

Schizophrenia has long been thought to have its biochemical basis in an over-activity of dopamine pathways projecting into an area of the brain known as the striatum. More recently, a developing body of evidence suggests that schizophrenia also involves reduced activity of glutamate pathways projecting into the same area. We began studying whether AMPAKINE compounds, which increase current flow through the AMPA subtype of glutamate receptor, might have relevance to the treatment of schizophrenia.

In animal models where cognitive function is impaired by agents known to produce schizophrenia-like symptoms in humans, AMPAKINE compounds restore cognitive deficits, suggesting that in schizophrenia patients AMPAKINE compounds may improve the cognitive deficits when combined with current antipsychotic therapies.

Sleep Apnea

Sleep apnea is a serious disorder in which breathing repeatedly stops long enough to disrupt sleep, and temporarily decrease the amount of oxygen and increase the amount of carbon dioxide in the blood. Sleep apnea is defined by more than five periods per hour of ten seconds or longer without breathing. The most common type of sleep apnea is obstructive sleep apnea, which occurs by repetitive narrowing or collapse of the pharyngeal airway during sleep. Central sleep apnea, a much rarer type, is caused by a problem with the control of breathing in the brain (which is accomplished in the brain stem). Mixed sleep apnea, the third type, is a combination of central and obstructive factors occurring in the same episode of sleep apnea. Sleep apnea is often made worse by central nervous system depressants such as alcohol and opioid analgesics.

The repetitive cessation of breathing during sleep has substantial impact on the affected individuals. The disorder is associated with major co-morbidities including excessive daytime sleepiness and increased risk of cardiovascular disease, diabetes and weight gain. It is therefore important for these patients to seek therapy. However, there is currently no approved pharmacotherapy, and the most common treatment is to use continuous positive airway pressure, or CPAP, delivered via a nasal or full-face mask, as long as patients are able to tolerate the treatment. It is estimated that in more than 50% of cases, patients stop using the CPAP device on a regular basis. Given the large patient population of greater than 17 million in the U.S. alone, and a lack of suitable treatment options, there is a very large opportunity for pharmacotherapy to treat this disorder.

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In 2009, we initiated a pilot clinical study in patients previously diagnosed with sleep apnea to evaluate the ability of CX1739 to reduce the number of apnea events and improve blood oxygen saturation. Due to our financial constraints, enrollment in the study was slower than expected. We recently completed testing in the sleep apnea trial and are currently analyzing the related results.

Other Indications

We may conduct studies in various other indications that have not been discussed above. In recent years, we have developed a number of new patent applications for new composition of matter patents for both high and low impact compounds. If these applications are granted, they will provide patent protection for our new AMPAKINE molecules through 2028.

Manufacturing

We have no experience or capability to either manufacture bulk quantities of the new compounds that we develop, or to produce finished dosage forms of the compounds, such as tablets or capsules. We rely, and presently intend to rely, on the manufacturing and quality control expertise of contract manufacturing organizations or current and prospective corporate partners. There is no assurance that we will be able to enter into manufacturing arrangements to produce bulk quantities of our compounds on favorable financial terms. There is, however, substantial availability of both bulk chemical manufacturing and dosage form manufacturing capability in the U.S. and international pharmaceutical industry that we believe that we can readily access.

Marketing

We have no experience in the marketing of pharmaceutical products and do not anticipate having the resources to distribute and broadly market any products that we may develop for indications such as Alzheimer s disease and ADHD. We will therefore continue to seek commercial development arrangements with other pharmaceutical companies for our proposed products for those indications that require significant sales forces to effectively market. In entering into such arrangements, we may seek to retain the right to promote or co-promote products for certain of the Orphan Drug indications in North America. We believe that there is a significant expertise base for such marketing and sales functions within the pharmaceutical industry and expect that we could recruit such expertise if we pursue to directly market a drug. With respect to Orphan Drugs, we may distribute and market such products directly.

As noted under the caption Risk Related to Our Business under the Risk Factors section, we are at an early stage of development and we may not be able to successfully develop and commercialize our products and technologies, and there are certain risks related to the development and commercialization of our products.

Technology Rights

In 1993, we entered into an agreement with the Regents of the University of California, or the University, under which we secured exclusive commercial rights to AMPA-receptor modulating technology and compounds (the AMPAKINE technology) for the treatment of deficits of memory and cognition. The relationship later was expanded to include additional agreements for other indications. We paid an initial license fee and are obligated to make additional payments, including license maintenance fees and patent expense reimbursements creditable against future royalties, over the course of initiating and conducting human clinical testing and obtaining regulatory approvals. When and if sales of licensed products commence, we will pay royalties on net sales. During the fiscal year ended June 30, 2003, we amended the agreement with the University to exclude the treatment of disease areas outside of the central nervous system that we would not have the resources or the capability to develop in a timely manner. Additionally, in connection with our March 2010 transaction with Biovail, with our consent, the University and Biovail entered an agreement to provide Biovail with non-exclusive commercial rights to the AMPAKINE technology for use for the treatment of respiratory depression or vaso-occlusive crises associated with sickle cell disease. As a result of our transaction with Biovail, we incurred certain license fees payable to the University. Of the patents licensed from the University, the date for the last to expire issued patent is January 2025.

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As noted under the caption Risk Related to Our Business under the Risk Factors section, our products rely on licenses from research institutions, and if we lose access to these technologies, our business would be substantially impaired.

Patents and Proprietary Rights

We are aggressively pursuing patent protection of our technologies. We own or have exclusive rights (within our areas of product development) to more than 25 patent families comprising over 250 issued or allowed U.S. and foreign patents and over 200 additional U.S. patent applications and their international counterparts pending. These patents form the foundation of our business and the pharmaceutical industry in general. Additionally, we are consistently filing new disclosures and patents for new structures and new uses, and in 2008 we filed new patent applications covering hundreds of new compounds. If these applications are granted as filed, they will provide patent protection for our new molecules through 2028.

One of our licensed patents covers the method of use for our AMPAKINE compounds as well as compounds made by others and describes the mechanism by which AMPAKINE compounds may affect the treatment of memory and cognition. This patent was issued to the University in the U.S. in 1999, and provides protection through 2016. We believe that this patent provides coverage in the U.S. that extends to both neurological disorders such as Alzheimer s disease as well as psychiatric conditions with cognitive disturbances including depression, obsessive compulsive disorder and phobic disorders. Similar method of use patents have been issued in Mexico, Australia and New Zealand and we have licenses to such patents.

In November 2003, a similar patent, licensed by us, was issued to the University by the European Patent Office, or the EPO, that provides protection through 2013. Upon issuance of the patent, an opposition was filed by Eli Lilly and Company and in August 2004, an opposition also was filed by GlaxoSmithKline. In cooperation with the University, we responded to the oppositions. At an oral hearing in January 2008, the EPO decided to revoke this patent. One of the reasons cited for the revocation was a filing technicality related to matter added to the original patent application. The EPO decided that the parent application as filed did not provide sufficient basis for several terms that appeared in the final claims of the patent. We have subsequently filed a formal appeal of the EPO s decision. The revocation decision does not take effect until any appeal is concluded, and that process may take several years to resolve.

Another method of use patent licensed by us contains a broad claim for any AMPA-modulating compound to treat schizophrenia. This patent was issued to the University in the U.S. in 1998, and subsequently has been issued in Australia. An additional method of use patent containing a broad claim for any AMPA-modulating compounds combined with antipsychotic medications to treat schizophrenia has issued in Europe. However, in December 2006 we were notified by the EPO that oppositions to this patent were filed by Eli Lilly and Company and another by GlaxoSmithKline. In April 2007, we submitted our written response to the EPO to counter these objections. An oral hearing was held in October 2008. The EPO ruled in our favor, to maintain the claims of the patent. However, both opponents filed a formal appeal to the EPO s decision. The patent remains enforced throughout the appeal process, and would continue to provide protection through 2018, unless during the appeal process, the patent is overturned.

For both patent appeals, there are no timeframes available for a decision from the EPO. As a result, the process to determine whether the oppositions filed for this patent will or will not prevail in Europe may take several years to resolve. The legal process may continue for most of the remaining life of the earlier patent, given that the European patent expires in 2013. We do not believe that the European decisions for either patent are material to the future of our AMPAKINE technology given these patents limited life for commercial protection.

Most importantly, we own or have exclusive rights to a large portfolio of composition of matter patents or pending patent applications with much longer patent lives that we believe are fundamental to pharmaceuticals in general and more critical to our commercial protection worldwide. AMPAKINE CX717 was acquired by Biovail in our March 2010 transaction, along with certain rights to CX1739. Specifically, Biovail s rights to CX1739 are limited to an intravenous dosage form to treat respiratory depression or vaso-occlusive crises associated with sickle cell disease. The structure of the transaction with Biovail permits us to pursue the development of CX1739 as a potential treatment for sleep apnea disorders, ADHD and other indications. CX1739 is included in composition of matter claims in pending applications filed in the U.S. and worldwide. If issued, this patent family would expire in May 2028.

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CX2007 and CX2076, part of a chemically distinct series of low impact AMPAKINE compounds, are included in other patent applications filed in the U.S. and worldwide. If issued, this patent family would expire in August 2028.

Similarly, our high impact AMPAKINE, CX929, is included in a composition of matter patent issued in the U.S. and in pending applications filed worldwide. The patent issued in the U.S. and the patents for the worldwide applications, if issued, would expire in November 2022.

Furthermore, because patent rules and regulations, and burden of proof requirements differ substantially between the U.S. and Europe, specifically in regards to the revocation reason cited by the EPO above, we believe that the decision by the EPO is not likely to impact the patents that have issued in the U.S.

Our rights under the University patents are contingent upon us making certain minimum annual payments to the University, meeting certain milestones and diligently seeking to commercialize the underlying technology. Over the past five years, we believe that we have demonstrated such diligence.

Since issuance of a patent does not guarantee the right to practice the claimed invention, others may obtain patents that we would then need to license or design around in order to practice our patented technologies. We may not be able to obtain licenses that might be required to practice these technologies due to patents of others on reasonable terms or at all. Additionally, any unpatented manufacture, use or sale of our technology, processes or products may infringe on patents or proprietary rights of others, and we may be unable to obtain licenses or other rights to these other technologies that may be required for commercialization of our proposed products or processes.

Also, we rely to a certain extent upon unpatented proprietary technology and may determine in some cases that our interests would be better served by reliance on trade secrets or confidentiality agreements rather than patents.

As noted under the caption Risk Related to Our Industry under the Risk Factors section, if we fail to secure adequate intellectual property protection, it could significantly harm our financial results and ability to compete.

Government Regulation

In order to test, produce and market human therapeutic products in the U.S., mandatory procedures and safety standards established by the FDA must be satisfied. Obtaining FDA approval is a costly and time-consuming process. We have initiated Phase I and early Phase II testing in the U.S. and Europe. Some clinical trials were and are performed in the U.S. under Notices of Claimed Investigational Exemption for a New Drug, or IND, filed with the FDA by our clinical collaborators. We plan to file an IND for CX1739. It is our intent that Servier, Biovail or another pharmaceutical company partner or partners that we are seeking, will pursue other required regulatory approvals to conduct further clinical testing with AMPAKINE compounds. However, we intend to file other IND s (and equivalent regulatory filings outside of the U.S.) for additional AMPAKINE compounds to facilitate the development of our Orphan Drug strategy.

Clinical trials are normally conducted in three phases. Phase I trials are concerned primarily with safety of the drug, involve fewer than 100 subjects, and may take from six months to over a year. Phase II trials normally involve a few hundred patients. Phase II trials are designed to demonstrate effectiveness and to determine optimal dosing in treating or diagnosing the disease or condition for which the drug is intended. Short-term side effects and risks in people whose health is impaired also may be examined. Phase III trials may involve up to several thousand patients who have the disease or condition for which the drug is intended, to approximate more closely the conditions of ordinary medical practice. Phase III trials also are designed to clarify the drug s benefit-risk relationship, to uncover less common side effects and adverse reactions, and to generate information for proper labeling of the drug. The FDA receives reports on the progress of each phase of clinical testing, and may require the modification, suspension, or termination of clinical trials if an unwarranted risk is presented to patients. The FDA estimates that the clinical trial period of drug development can take up to ten years, and typically averages six years. With certain exceptions, once clinical testing is completed, the sponsor can submit a New Drug Application for approval to market a drug. The FDA s review of a New Drug Application can also be lengthy.

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Therapeutic products that may be developed and sold by us outside the U.S. will be subject to regulation by the various countries in which they are to be distributed. In addition, products manufactured in the U.S. that have not yet been cleared for domestic distribution will require FDA approval in order to be exported to foreign countries for distribution there. Also, as noted under the caption Risk Related to Our Industry under the Risk Factors section, the regulatory approval process is expensive, time consuming, uncertain and may prevent us from obtaining required approvals for the commercialization of some of our products.

We plan to seek additional financing to support our development of selected AMPAKINE compounds for Orphan Drug indications. Without such financing, we may be severely restricted in our overall development. We would be dependent upon our sub-licensees and might be unable to maintain our current core technical and management capabilities. Under such circumstances, we would be dependent upon entering into partnerships or other collaborative arrangements with third parties with the required resources to obtain the needed approvals. Along with our agreements with Servier and Biovail, we intend to enter into license or other arrangements with other pharmaceutical companies under which those companies would conduct the required clinical trials and seek FDA approval for most or all of our proposed products. As noted under the caption Risks Related to Our Business under the Risk Factors section, there are certain risks related to the proposed strategic alliances we are seeking, as we may not be able to enter into the strategic alliances necessary to fully develop and commercialize our products and technologies, and we will be dependent on our corporate partners if we do.

Competition

The pharmaceutical industry is characterized by rapidly evolving technology and intense competition. Many companies of all sizes, including both major pharmaceutical companies and specialized biotechnology companies, are engaged in activities similar to ours. A large number of drugs intended for the treatment of Alzheimer s disease, MCI, schizophrenia, depression, ADHD and other neurological and psychiatric diseases and disorders are on the market or in the later stages of clinical testing. For example, approximately 15 drugs are in development in the U.S. for schizophrenia and over 25 drugs are under clinical investigation in the U.S. for the treatment of Alzheimer s disease. Most of our competitors have substantially greater financial and other resources and larger research and development staffs. Larger pharmaceutical company competitors also have significant experience in preclinical testing, human clinical trials and regulatory approval procedures.

In addition, colleges, universities, governmental agencies and other public and private research organizations will continue to conduct research. These institutions are becoming more active in seeking patent protection and licensing arrangements to collect license fees, milestone payments and royalties in exchange for license rights to technology that they have developed, some of which may be directly competitive with us.

We expect technological developments in the neuropharmacology field to continue to occur at a rapid rate and expect that competition will remain intense as those advances continue. Based on the technical qualifications, expertise and reputations of our Scientific Directors, consultants and other key scientists, we believe that our operating strategy to develop AMPAKINE compounds for the treatment of selected Orphan Drug indications and to out-license the technology to larger pharmaceutical companies for major chronic indications is appropriate.

Product Liability Insurance

The clinical testing, manufacturing and marketing of our products may expose us to product liability claims, against which we maintain liability insurance. As noted under the caption Risks Related to Our Industry of the Risk Factors section, there are certain risks to us related to product liability claims that may be brought against us.

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Employees

We currently have 11 full-time employees, including five Ph.D.-level or equivalent employees. Of the full-time employees, seven are engaged in management and administrative support and the remainder is engaged in research and development.

We do not anticipate significant increases in our employee levels during the next twelve months. We will continue to outsource a substantial amount of our development activities to qualified vendors.

Legal Proceedings

Currently, no legal proceedings or claims are pending against or involve us.

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MANAGEMENT

Directors

The names of our directors and certain biographical information about them are set forth below:

Name	Age	Director Since	Principal Occupation
Robert F. Allnutt [1][3]	74	1995	Senior Counselor, APCO Worldwide, Inc.
John F. Benedik [2][3]	62	2005	Retired Senior Partner, Arthur Andersen LLP
Charles J. Casamento [1][2]	64	1997	Principal and Executive Director, The Sage Group, Inc.
Carl W. Cotman, Ph.D. [4]	70	1991	Professor of Neurology and Neurobiology and Behavior, University of California at Irvine; Co-Founder, Scientific Director and Consultant to the Company
Peter F. Drake, Ph.D. [2][3]	56	2003	Managing General Partner, Mayflower Partners
M. Ross Johnson, Ph.D. [1] [4]	65	2002	President and Chief Executive Officer, Parion Sciences, Inc.
Roger G. Stoll, Ph.D.	68	2002	Executive Chairman of the Company
Mark A. Varney, Ph.D. [4]	44	2007	President and Chief Executive Officer of the Company

[1] Member of Compensation Committee
[2] Member of Audit Committee
[3] Member of Governance and Nominations Committee
[4] Member of Research and Development Committee

Robert F. Allnutt has been a director since December 1995 and served as Chairman of the Board from February 1999 until the appointment of Roger G. Stoll, Ph.D. in August 2002. Since February 1995, Mr. Allnutt has been a senior counselor for APCO Worldwide, Inc., a public affairs and strategic communications company. Mr. Allnutt was Executive Vice President of the Pharmaceutical Manufacturers Association, or PhRMA, from 1985 until 1995 and was Vice President for Governmental Relations of Communications Satellite Corporation from 1984 until 1985. Prior to 1984, Mr. Allnutt held numerous positions in the federal government for over 25 years, including 15 years at National Aeronautics and Space Administration, or NASA, where he attained the position of Associate Deputy Administrator, the third highest ranking position in the agency headquarters. Mr. Allnutt currently serves as Vice Chair of the board of directors of the American Hospice Foundation. He previously served as a director of several pharmaceutical-related public and private companies, and of numerous charitable organizations including the National Health Council, the National Council on Aging, the National Medals of Science and Technology Foundation, and the NASA Alumni League. Mr. Allnutt holds a B.S. in Industrial Engineering from the Virginia Polytechnic Institute and J.D. (with distinction) and L.L.M. degrees from George Washington University.

We believe that Mr. Allnutt s qualifications to serve on the Board of Directors include valuable business and management insights based on his past experience as a senior staff member of PhRMA, along with his significant experience in both public and private health care organizations and his work within a federal agency at NASA for 15 years. His broad range of experience and knowledge of the U.S. legal environment provides unique expertise and perspective as a member of the Board of Directors. Mr. Allnutt currently serves on both our Compensation Committee and our Governance and Nominations Committee.

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John F. Benedik was appointed to the Board of Directors of the Company in December 2005. From 1970 to May 2003, Mr. Benedik worked at Arthur Andersen LLP, where he was admitted to the firm s partnership in 1980. During his tenure with Arthur Andersen LLP, Mr. Benedik held a number of positions, including Division Head for the Consumer Products and Services audit division of the New York area offices from 1994 to 1998, Managing Partner of the New Jersey office from 1999 to 2002 and Practice Director of the New York area offices from 1998 to 2002. From September 2002 to May 2003, Mr. Benedik was a Managing Director of Arthur Andersen LLP. Mr. Benedik served on the board of directors and the audit committee of the board of Aeroflex Incorporated, a global provider of high technology solutions to aerospace, defense, cellular and broadband communications markets, from June 2004 until it was acquired in August 2007 by Veritas Capital in a transaction valued at approximately $1.1 billion. He currently serves as a board member and treasurer of the American Conference on Diversity. Mr. Benedik, a retired Certified Public Accountant in New York and New Jersey, received a B.A. in English from Fordham College and an M.B.A from the Columbia University Graduate School of Business with a concentration in accounting.

We believe that Mr. Benedik s qualifications to serve on the Board of Directors include his more than 30-years of experience working as a certified public accountant in the audit division at Arthur Andersen LLP, and his experience as a Managing Director of Arthur Andersen LLP. His experience and insights also help the Company assess risk management and overall financial risks. Mr. Benedik s financial expertise has proven invaluable to the Company, and he currently serves as the Chairman of the Audit Committee and a member of the Governance and Nominations Committee.

Charles J. Casamento has served as a director of the Company since July 1997. Since May 2007, Mr. Casamento has been a Principal and Executive Director of The Sage Group, Inc., a provider of strategic and transactional assistance to healthcare companies in the pharmaceutical, diagnostic, medical device, biotechnology and life science fields. From October 2004 to April 2007, Mr. Casamento was President and Chief Executive Officer of Osteologix, Inc. a publicly held pharmaceutical company that develops products for potential use in treating osteoporosis. From 1999 to August 2004, Mr. Casamento served as Chairman of the board, President and Chief Executive Officer of Questcor Pharmaceuticals, Inc., a publicly held biopharmaceutical company. Mr. Casamento formerly served as RiboGene, Inc. s Chairman of the board, President and Chief Executive Officer from 1993 through 1999 until it merged with Cypros to form Questcor. He was co-founder, President and Chief Executive Officer of Interneuron Pharmaceuticals, a biopharmaceutical company, from March 1989 until May 1993. Prior to that, Mr. Casamento has held senior management positions at a number of companies, including Senior Vice President, Pharmaceuticals and Strategic Planning for the Critical Care Division of American Hospital Supply; and finance, marketing and business development positions with Johnson & Johnson, Hoffman-LaRoche, Inc. and Sandoz Inc. Mr. Casamento currently serves on the board of directors and as Chairman of the audit committee of Supergen, Inc., a publicly held pharmaceutical company, and he serves on the board of directors and compensation committee of Vivus, Inc., a publicly held pharmaceutical company. He holds a B.S. in Pharmacy from Fordham University and an M.B.A. from Iona College.

We believe that Mr. Casamento s qualifications to serve on the Board of Directors include his significant experience in operational and management roles within both large and small pharmaceutical companies, including Osteologix, Inc., Questcor Pharmaceuticals, Inc., Interneuron Pharmaceuticals and Hoffman-LaRoche, Inc. He also has extensive prior experience working in business development and provides the Company with extremely useful expertise in developing its business base, as highlighted by his position as Executive Director at The Sage Group, a consulting company specializing in the pharmaceutical space. Mr. Casamento also provides broad financial expertise that assists the Company in his current role on both our Audit Committee and Compensation Committee.

Carl W. Cotman, Ph.D. is a co-founder of the Company. He has been a Scientific Director of and consultant to the Company since October 1987, and has served as a director of the Company from March 1989 to October 1990 and since November 1991. Dr. Cotman is currently a Professor of Neurology and Neurobiology and Behavior at the University of California, Irvine, where he also held various other teaching and research positions since he began his career there in 1968. Since 1995 he has also been the Director of the Institute for Brain Aging and Dementia at the University of California, Irvine. He has chaired the Scientific Advisory Council of the Alzheimer s Association and is currently a member of numerous professional associations and committees, including the National Institute of Aging Task Force and the Bayer Consumer Care Nutrition Advisory Board. Dr. Cotman also serves on editorial boards of publications such as the Journal of Alzheimer s Disease and Other Dementias. Dr. Cotman received his B.A. in Chemistry from Wooster College, an M.A. in Analytical Chemistry from Wesleyan University, and a Ph.D. in Biochemistry from Indiana University.

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We believe that Dr. Cotman s qualifications to serve on the Board of Directors include his extensive scientific knowledge and understanding of drug discovery and potential pathways contributing to diseases of the central nervous system. His extensive scientific background includes more than 40 years in various teaching and research positions at the University of California, Irvine, working in the fields of neurobiology, memory and cognition, and the basic mechanisms causing brain dysfunction in aging and the development of Alzheimer s disease. He currently is Chairman of our Research and Development Committee.

Peter F. Drake, Ph.D. has served as a director of the Company since October 2003. Dr. Drake is currently the Managing General Partner of Mayflower Partners, a healthcare investment fund. From 1999 to 2002, he served as a Managing Director in the Equity Research Department of Prudential Securities, Inc., after Prudential acquired Vector Securities International, an investment banking firm co-founded by Dr. Drake in 1988. Vector specialized in raising capital for emerging healthcare companies and acted as an advisor in merger and alliance transactions in the healthcare area. Dr. Drake also co-founded Deerfield Management and Vector Fund Management, both of which are healthcare hedge funds. Dr. Drake joined the investment banking firm of Kidder, Peabody & Co. as a Biotechnology Analyst in 1983, becoming a partner in 1986. He currently serves on the board of directors of Trustmark Insurance Co., a healthcare insurance provider, Penwest Pharmaceuticals, a publicly traded drug delivery company, Sequoia Sciences, a private biotechnology company, and Rodman & Renshaw Capital Group, an investment bank that provides corporate finance, strategic advisory and related services to public and private companies. Dr. Drake received a B.A. degree in Biology from Bowdoin College and attended the Wharton School of Business at the University of Pennsylvania. After receiving his Ph.D. in Biochemistry and Neurobiology from Bryn Mawr College, he spent three years as a Senior Research Associate in the Department of Developmental Biology and Anatomy at Case Western Reserve University.

We believe that Dr. Drake s qualifications to serve on the Board of Directors include his extensive experience working as an executive in the investment banking industry and his understanding of corporate finance and capital markets that he gained through his work at Kidder Peabody & Co., Vector Securities International, which he co-founded, and Prudential Securities, Inc. With a Ph.D. in the neurosciences plus his capital markets expertise and experience, Dr. Drake provides a very unique set of qualifications and perspectives to assist with the development of the Company. He currently serves as Chairman of our Governance and Nominations Committees and as a member of our Audit Committee.

M. Ross Johnson, Ph.D. has served as a director of the Company since April 2002. Dr. Johnson is currently Chief Executive Officer, Chief Scientific Officer and President of Parion Sciences, Inc., a privately held pharmaceutical company that he co-founded in 1999. From 2002 to 2008, Dr. Johnson served on the board of directors of ADVENTRX Pharmaceuticals, a biopharmaceutical company focused on the clinical development of antiviral and anticancer technologies. From 1995 to 1999, Dr. Johnson served as President, Chief Executive Officer and Chief Scientific Officer of Trimeris Inc., a pharmaceutical company that he took public in 1997. From 1987 to 1994, he served as Vice President of Chemistry at Glaxo Inc., where he was part of the original scientific founding team for Glaxo s research entry into the United States. From 1971 to 1987, Dr. Johnson served in key scientific and research management positions with Pfizer Central Research. Dr. Johnson currently holds board positions with Parion Sciences, Inc. and the University of North Carolina Education Advancement Board. He also serves on the Advisory Boards of the College of Chemistry at the University of California at Berkeley, the Department of Chemistry at the University of North Carolina at Chapel Hill, the Biomanufacturing Research Institute and Technology Enterprise (BRITE) Center for Excellence located at North Carolina Central University and the Graduate Education Advisory Board at the University of North Carolina at Chapel Hill. He received his B.S. in Chemistry from the University of California, Berkeley, and a Ph.D. in Organic Chemistry from the University of California, Santa Barbara.

We believe that Dr. Johnson s qualifications to serve on the Board of Directors include his extensive contributions to drug discovery and development, which have resulted in over 300 scientific publications, patents and invited presentations, of which include 119 issued patents, and his experience working on several advisory boards, as a chief executive officer and chief scientific officer of other private and public companies. His work experience at very large pharmaceutical companies and his expertise and success in the biotech start-up environment all lend to his considerable ability to help guide the Company. He currently serves as Chairman of our Compensation Committee and as a member of our Research and Development Committee.

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Roger G. Stoll, Ph.D. has served as a director of the Company since April 2002, and served as Chairman, President and Chief Executive Officer of the Company from August 2002 to August 2008. In August 2008, Dr. Stoll became Executive Chairman of the Company. From 2001 to 2002, Dr. Stoll served as a consultant to the venture capital industry. From 1998 to January 2001, Dr. Stoll served as Executive Vice President at Fresenius Medical Care-North America, with responsibility for the Dialysis Products Division, Spectra Medical Services Division (diagnostic services), and the North American CIS group (computer information systems). From 1991 to 1998, he served as President and Chief Executive Officer of Ohmeda Inc., a pharmaceutical and medical products company with worldwide sales of approximately $1 billion. He also was a member of the board of directors of BOC Group, PLC, now part of The Linde Group. From 1986 to 1991, Dr. Stoll served as a senior executive at Bayer AG, where he rose to the position of Executive Vice President and General Manager of the worldwide diagnostic business group that managed direct sales, manufacturing, research and development and services in over 60 countries. From 1976 to 1986, Dr. Stoll held positions of increasing responsibility at the American Critical Care division of American Hospital Supply Corporation (now Baxter), including President of American Critical Care from 1981 to 1986. He started his industrial career in 1972 at The Upjohn Company, where he conducted Phase I IV clinical pharmacology studies in humans. Dr. Stoll serves on the board of directors of Chelsea Therapeutics, a publicly held company focusing on the acquisition, development and commercialization of products for the treatment of autoimmune diseases, inflammatory diseases and cancer. Dr. Stoll also serves on the board of directors of Delcath Systems, Inc., a publicly held company engaged in the development and testing of systems for the treatment of liver cancer. Additionally, Dr. Stoll serves on the Alumni Advisory Board for the School of Pharmacy for the University of Connecticut. He obtained his B.S. in pharmacy from Ferris State University and a Ph.D. in biopharmaceutics from the University of Connecticut. He also carried out post-doctoral studies in pharmacokinetics at the University of Michigan and has published over 30 scientific papers and contributed chapters in textbooks in the field of drug kinetics.

We believe that Dr. Stoll s qualifications to serve on the Board of Directors include his substantial experience working as a consultant to the venture capital industry, his tenure as an executive officer at several large pharmaceutical and medical products companies, and his service on the board of directors of other public biotechnology companies. Dr. Stoll provides the Board of Directors with valuable operational, strategic, leadership and management experience, and his varied experience allows him to provide financial and capital raising expertise to the Board and an important perspective on issues facing biopharmaceutical companies. In addition, his service on the board of directors of other companies and his international business experience provide substantial corporate governance expertise.

Mark A. Varney, Ph.D. has served as a director since May 2007. Dr. Varney was appointed Chief Scientific Officer and Chief Operating Officer in January 2006, and appointed President and Chief Executive Officer of the Company in August 2008. Prior to joining the Company Dr. Varney held the senior level position of Vice President and Head of Discovery at Sepracor, Inc., a publicly held pharmaceutical company, from June 2004 to January 2006. From July 2003 to June 2004, Dr. Varney was Vice President of Drug Discovery at Bionomics, Ltd., a publicly held biotechnology company that focuses on drugs to treat cancer and disorders of the central nervous system. From October 1994 to September 1999, Dr. Varney held positions of increasing responsibilities over his five-year tenure at SIBIA Neurosciences, Inc., a biotechnology company, including his most recent position as Director of Neuropharmacology. Upon the acquisition of SIBIA by Merck, Inc. in September 1999, he was appointed a Director at Merck s San Diego facility until April 2003. Prior to SIBIA, he held research positions at Servier in France and Merck Sharp & Dohme in the U.K. Dr. Varney received his B.Sc. in Biochemistry with honors from Surrey University, U.K. and completed his Ph.D. and postdoctoral training at Oxford University, U.K.

We believe that Dr. Varney s qualifications to serve on the Board of Directors include his position as the Company s President and Chief Executive Officer, and his experience working in senior level positions at Sepracor, Inc., Bionomics, Inc. and SIBIA (later as part of Merck, Inc). Dr. Varney provides the Board with both technical and scientific expertise in drug discovery and drug development, research management, governmental regulations and strategic planning expertise that is important to the advancement of our research platform as well as to the overall success of the Company.

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Executive Officers

Each of our executive officers serves at the discretion of the Board of Directors. The names of our executive officers and certain biographical information about them are set forth below:

Name	Age	Position with Company
Roger G. Stoll, Ph.D.	68	Executive Chairman
Mark A. Varney, Ph.D.	44	President and Chief Executive Officer
Maria S. Messinger	43	Vice President, Chief Financial Officer and Corporate Secretary
James H. Coleman	69	Senior Vice President, Business Development
Steven A. Johnson	59	Vice President, Preclinical Development

The biographical summaries for Drs. Stoll and Varney have been presented earlier. There are no family relationships between any director or executive officer and any other director or executive officer.

Maria S. Messinger was appointed Vice President, Chief Financial Officer and Corporate Secretary of the Company in December 1999. She has served as Controller of the Company since September 1994. From August 1989 to September 1994, Ms. Messinger served in a progression of positions at Ernst & Young LLP, including her most recent position as an Audit Manager. She holds a B.A. from the School of Business Administration and Economics at California State University, Fullerton and maintains an active license as a Certified Public Accountant in California.

James H. Coleman was appointed Senior Vice President, Business Development in May 2000. Prior to joining the Company, Mr. Coleman was President and Senior Partner of Diversified Healthcare Management, Inc., or DHM, a biopharmaceutical and biotechnology consulting firm that he founded in 1997. From March 1999 to May 2000, the Company was a client of DHM. During 1996, Mr. Coleman served as Vice President of Commercial Development at CoCensys, Inc., a biotechnology company, where he directed strategic planning and external business development. Mr. Coleman was also employed as an executive at Pharmacia & Upjohn, Inc. for over 25 years, where he acquired extensive management expertise in new product development, global strategic marketing, sales, CNS research and clinical research trial methodologies. Mr. Coleman holds a B.S. in Applied Biology from the University of Rhode Island.

Steven A. Johnson, Ph.D., was appointed Vice President of Preclinical Development in January 2004 and appointed as an executive officer of the Company in February 2007. Dr. Johnson has served as Director, Clinical Research from 2000 to 2003, Director, Biological Research from 1995 to 2000, and Senior Scientist of the Company from 1994 to 1995. From 1989 to 1994, Dr. Johnson was a Research Assistant Professor in the School of Gerontology at the University of Southern California. Prior to that, he conducted research in the field of the molecular biology of development at the California Institute of Technology, and conducted research in the field of molecular biology of Alzheimer s disease at the University of Southern California. A recipient of numerous federal, state and private grants, Dr. Johnson has published more than 50 scientific papers. He received his B.S. in Food Science from Oregon State University and his Ph.D. in Molecular Biology from Purdue University.

Other Key Employees

Leslie J. Street, Ph.D., was appointed Senior Director of Medicinal Chemistry in March 2007. From October 2006 to January 2007, Dr. Street was the Senior Director and Head of Medicinal Chemistry at Renovis, Inc., a biopharmaceutical company engaged in the discovery and development of drugs to address neurological conditions and neuroinflammatory disorders. From March 2006 to August 2006, he served as a consultant to Neurocrine Biosciences, Inc., a biopharmaceutical company focused on the discovery and development of therapeutics to treat diseases and disorders of the central nervous system. From October 1985 to March 2006, Dr. Street conducted research at Merck s Neuroscience Research Center in the U.K., a division of Merck, Inc., with his most recent position as Distinguished Senior Investigator of Medicinal Chemistry. During his tenure at Merck, Dr. Street was focused on drug discovery programs for treating migraine, cognitive disorders, anxiety and schizophrenia. He led medicinal chemistry teams that were successful in advancing several clinical candidates in the central nervous system disease area, including the anti-migraine drug Rizatriptan (MAXALT®), which was approved by the Food and Drug Administration in 1998. Dr. Street has published nearly 50 peer-reviewed manuscripts and over 80 patents. He received his B.S. and his Ph.D. in Chemistry from Leeds University in the U.K.

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Scientific Consultants

The key scientific consultant to the Company is Gary S. Lynch, Ph.D. Arvid M. Carlsson, M.D., Ph.D. serves as a consultant to the Board of Directors.

Gary S. Lynch, Ph.D., 66, is a co-founder of the Company. He has been a Scientific Director of and consultant to the Company since October 1987 and served as a director of the Company from March 1988 to March 1989 and again from December 1994 to December 1995. Dr. Lynch has been a Professor in the Department of Psychiatry at the University of California, Irvine since 1981, and has held various other teaching and research positions at that University since 1969. Dr. Lynch has authored or co-authored nearly 600 research publications in the areas of neurobiology, cognition and memory. Dr. Lynch holds a B.A. from the University of Delaware and a Ph.D. from Princeton University.

Arvid Carlsson, M.D., Ph.D., 87, has been a consultant to the Company since April 2002. A co-recipient of the 2000 Nobel Prize for Medicine, Dr. Carlsson is Professor Emeritus at the University of Göteborg, and is a member of the Swedish Academy of Sciences and a foreign affiliate of the U.S. National Academy of Sciences. Dr. Carlsson has authored several hundred articles, which have helped to form the basis of modern neuropsychopharmacology. In 1975, he was elected as a Foreign Corresponding Fellow of The American College of Neuropsychopharmacology. In addition to the Nobel Prize, he has been the recipient of The Japan Prize in Psychology and Psychiatry, The Research Prize of the Lundbeck Foundation (Denmark) and the Lieber Prize (USA) for research in schizophrenia. He was also the recipient of the Legion of Honour (France). Dr. Carlsson s memberships include Member of the Academia Europaea, Member of the Royal Swedish Academy of Sciences, Honorary Fellow of the World Federation of Societies of Biological Psychiatry, Honorary Foreign Associate of the Institute of Medicine, National Academy of Sciences, U.S.A. and Honorary Member of the German Society of Biological Psychiatry. Dr. Carlsson received his M.D. and Ph.D. in Pharmacology from the University of Lund, Sweden.

Director Independence

A majority of members of the Board of Directors are independent directors, as that term is defined under Section 803 of the NYSE Amex Company Guide. The Board of Directors has affirmatively determined that the following six directors are independent: Robert F. Allnutt, John F. Benedik, Charles J. Casamento, Carl W. Cotman, Peter F. Drake and M. Ross Johnson.

EXECUTIVE COMPENSATION

Summary Compensation Table

The table below summarizes the total compensation paid or earned by each of the named executive officers for the fiscal years ended December 31, 2010, 2009 and 2008. The information under the heading, Stock Awards for all applicable named executive officers includes the fair market value of shares of our common stock issued in exchange for accrued paid time off in excess of fifty (50) days, as explained more fully below. The information contained under the heading, Option Awards for all named executive officers includes the estimated value of equity awards using the Black-Scholes option pricing model as of the grant date of such awards, as explained more fully below, and does not reflect actual cash payments or actual dollars awarded.

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Name and Principal Position	Year	Salary ($)	Bonus ($)	Stock Awards ($)[1]	Option Awards ($)[2]	All Other Compensation ($)[3]	Total ($)
Roger G. Stoll, Ph.D.	2010	$ 338,218			$		$ 338,218
Executive Chairman	2009	$ 305,250			$ 93,552		$ 398,802
	2008	$ 370,000			$ 87,280	$	$ 457,280
Mark A. Varney, Ph.D.	2010	$ 330,905	$ 30,000		$	$ 49,600[4]	$ 410,505
President and Chief	2009	$ 298,650			$ 97,706	$ 68,800[5]	$ 465,156
Executive Officer	2008	$ 347,277			$ 241,933	$ 88,000[6]	$ 677,210
Maria S. Messinger, CPA	2010	$ 222,127	$ 30,000		$		$ 252,127
Vice President, Chief	2009	$ 200,475			$ 63,143		$ 263,618
Financial Officer and	2008	$ 243,000		$ 14,870	$ 43,640		$ 301,510
Corporate Secretary							
James H. Coleman	2010	$ 228,526			$	$ 9,279[7]	$ 237,805
Senior Vice President,	2009	$ 206,250			$ 45,696	$ 9,280[7]	$ 261,226
Business Development	2008	$ 250,000		$ 5,464	$ 43,640	$ 9,280[7]	$ 308,384
Steven A. Johnson, Ph.D.	2010	$ 202,017	$ 30,000		$	$	$ 232,017
Senior Vice President,	2009	$ 182,325			$ 43,536	$	$ 225,861
Business Development	2008	$ 221,000		$ 8,589	$ 43,640	$	$ 273,229

(1) Amounts represent the fair market value of shares issued in exchange for cancellation of accrued paid time off in excess of fifty (50) days as of the end of May 2008, based upon the employee s current rate of compensation per day. The exchange took place on May 30, 2008 based on the closing price per share of our common stock on the NYSE Amex of $0.78 on such date and rounded to the nearest whole share. In connection with the transaction, Ms. Messinger, Mr. Coleman and Dr. Johnson received 19,064, 7,005 and 11,012 shares of our common stock, respectively. The shares of our common stock were issued under our 2006 Stock Incentive Plan.

(2) Amounts represent the aggregate grant date estimated fair value of the option award using the Black-Scholes option pricing model. Assumptions used in the calculation of these amounts are included in footnote 1 to our audited financial statements for the year ended December 31, 2009.

(3) In accordance with Securities and Exchange Commission rules, Other Annual Compensation in the form of perquisites and other personal benefits has been omitted where the aggregate amount of such perquisites and other personal benefits was less than $10,000.

(4) Represents payments by us to Dr. Varney under the terms of his employment agreement and related to his relocation to southern California, including $31,000 for a mortgage subsidy, subject to a gross-up of $18,600 to cover his additional income tax liabilities. See Employment and Consulting Agreements on page 51.

(5) Represents payments by us to Dr. Varney under the terms of his employment agreement and related to his relocation to southern California, including $43,000 for a mortgage subsidy, subject to and also including a gross-up of $25,800, to cover his additional income tax liabilities. See Employment and Consulting Agreements on page 51.

(6) Represents payments by us to Dr. Varney under the terms of his employment agreement and related to his relocation to southern California, including $55,000 for a mortgage subsidy, subject to and also including a gross-up of $33,000, to cover his additional income tax liabilities. See Employment and Consulting Agreements on page 51.

(7) Represents premiums for life insurance for Mr. Coleman, in lieu of participation in our medical benefit plans.

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The table below details the cash and estimated values for the non-cash components of the above summary compensation information for each named executive officer for the years ended December 31, 2010, 2009 and 2008. The non-cash components include the estimated value of equity awards using the Black-Scholes option pricing model, as described more fully in the table above.

Name and Principal Position	Year	Total Cash Compensation ($)	Total Non-cash Compensation ($)	Total ($)
Roger G. Stoll, Ph.D.	2010	$ 338,218	$	$ 338,218
Executive Chairman	2009	$ 305,250	$ 93,552	$ 398,802
	2008	$ 370,000	$ 87,280	$ 457,280
Mark A. Varney, Ph.D.	2010	$ 410,505	$	$ 410,505
President and Chief Executive Officer	2009	$ 367,450	$ 97,706	$ 465,156
	2008	$ 435,277	$ 241,933	$ 677,210
Maria S. Messinger, CPA	2010	$ 252,127	$	$ 252,127
Vice President, Chief Financial Officer	2009	$ 200,475	$ 63,143	$ 263,618
and Corporate Secretary	2008	$ 243,000	$ 58,510	$ 301,510
James H. Coleman	2010	$ 237,805	$	$ 237,805
Senior Vice President, Business	2009	$ 215,530	$ 45,696	$ 261,226
Development	2008	$ 259,280	$ 49,104	$ 308,384
Steven A. Johnson, Ph.D.	2010	$ 232,017	$	$ 232,017
Vice President, Preclinical	2009	$ 182,325	$ 43,536	$ 225,861
Development	2008	$ 221,000	$ 52,229	$ 273,229

Grants of Plan Based Awards

There were no grants of plan-based equity awards to the named executive officers during the fiscal year ended December 31, 2010. The amounts shown below reflect the target and maximum amounts based on the individual s current salary and position that can be received under the Company s performance-based incentive compensation program and the terms of such individual s employment agreement, if applicable.

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock or Units (#)	All Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards ($/Sh)	Grant Date Fair Value of Stock and Option Awards ($)
		Threshold ($)	Target ($)	Maximum ($)				
Roger G. Stoll, Ph.D.	N/A		$ 74,000	$ 74,000				N/A
Mark A. Varney, Ph.D.	N/A		$ 72,400	$ 72,400				N/A
Maria S. Messinger, CPA	N/A		$ 48,600	$ 48,600				N/A
James H. Coleman	N/A		$ 50,000	$ 125,000				N/A
Steven A. Johnson, Ph.D.	N/A		$ 44,200	$ 44,200				N/A

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Narrative to Summary Compensation Table and Grants of Plan Based Awards

In June 2004, the Board of Directors approved a performance-based incentive compensation program for named executive officers that included cash bonus targets of 20% of respective annual base salaries. Actual bonus amounts may differ from the established targets based upon our performance, as well as that of the individual named executive officer, as compared to established goals. For the year ended December 31, 2010, performance bonuses of $30,000 were awarded to each of Dr. Mark A. Varney, Ms. Maria S. Messinger and Dr. Steven A. Johnson. These performance bonuses represented less than 20% of the annual base salary for each of the respective named executive officers. There were no performance bonuses awarded to the named executive officers for the years ended December 31, 2009 and 2008.

The exercise price for the stock options granted to the named executive officers is no less than the fair market value of the stock on the date of the grant. Options vest at a rate of 33 1/3% per year starting on the anniversary date of the option grant and are contingent upon the officer s continued employment. Accordingly, the option will provide a return to the named executive officer only if he or she remains our employee and the market price of our common stock appreciates over the option term. There were no stock options granted to the named executive officers during the year ended December 31, 2010.

To better align the interests of our named executive officers with those of its stockholders, to create ownership focus and to build long-term commitment, we have adopted a common stock ownership policy for our named executive officers. The policy requires named executive officers to acquire and maintain ownership of at least 30,000 shares of our common stock before December 16, 2007, or within three years of commencement of service as a named executive officer, whichever is later. Thereafter, the policy provides for the withholding of salary increases and bonus payments, until the share ownership level has been achieved and maintained by such named executive officer. The Board of Directors has determined that all named executive officers are currently in compliance with the above common stock ownership policy.

See also Employment and Consulting Agreements for further discussion of compensation arrangements pursuant to which the amounts listed under the Summary Compensation Table and Grants of Plan Based Awards Table were paid or awarded and the criteria for such payment or award.

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Outstanding Equity Awards at Fiscal Year-End

There were no outstanding unvested stock awards as of December 31, 2010. The table below relates solely to outstanding option awards as of December 31, 2010. Except as noted in the footnotes below, the options listed below vest at a rate of 33 1/3% per year commencing on the first anniversary of the date of grant and have a ten-year term.

Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price	Option Expiration Date
Roger G. Stoll, Ph.D.	187,667	375,333		$ 0.20	08/22/2019
	133,334	66,666		$ 0.54	01/18/2018
	300,000			$ 1.30	12/18/2016
	205,017(1)			$ 2.95	02/09/2016
	300,000			$ 2.35	12/01/2015
	300,000			$ 2.68	12/16/2014
	600,000			$ 2.76	12/09/2013
	14,545(2)			$ 4.40	09/02/2013
	1,061(3)			$ 3.77	08/29/2013
	2,326(3)			$ 1.72	07/31/2013
	2,222(3)			$ 1.80	06/30/2013
	2,247(3)			$ 1.78	05/30/2013
	3,604(3)			$ 1.11	04/30/2013
	5,556(3)			$ 0.72	03/31/2013
	5,634(3)			$ 0.71	02/28/2013
	600,000(4)			$ 0.78	08/13/2012
	30,000			$ 2.68	04/09/2012
Mark A. Varney, Ph.D.	196,000	392,000		$ 0.20	08/22/2019
	133,334	66,666		$ 0.97	08/13/2018
	133,334	66,666		$ 0.54	01/18/2018
	250,000			$ 1.30	12/18/2016
	750,000(5)			$ 2.95	01/30/2016
Maria S. Messinger, CPA	126,667	253,333		$ 0.20	08/22/2019
	66,667	33,333		$ 0.54	01/18/2018
	125,000			$ 1.30	12/18/2016
	100,000			$ 2.35	12/01/2015
	100,000			$ 2.68	12/16/2014
	75,000			$ 2.76	12/09/2013
	663(3)			$ 3.77	08/29/2013
	1,453(3)			$ 1.72	07/31/2013
	1,389(3)			$ 1.80	06/30/2013
	1,404(3)			$ 1.78	05/30/2013
	2,252(3)			$ 1.11	04/30/2013
	3,472(3)			$ 0.72	03/31/2013
	3,521(3)			$ 0.71	02/28/2013
	50,000			$ 0.75	12/16/2012
	40,000			$ 2.27	04/24/2011

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Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price	Option Expiration Date
James H. Coleman	91,667	183,333		$ 0.20	08/22/2019
	66,667	33,333		$ 0.54	01/18/2018
	125,000			$ 1.30	12/18/2016
	100,000			$ 2.35	12/01/2015
	100,000			$ 2.68	12/16/2014
	75,000			$ 2.76	12/09/2013
	840(3)			$ 3.77	08/29/2013
	1,841(3)			$ 1.72	07/31/2013
	1,759(3)			$ 1.80	06/30/2013
	1,779(3)			$ 1.78	05/30/2013
	2,853(3)			$ 1.11	04/30/2013
	4,398(3)			$ 0.72	03/31/2013
	4,460(3)			$ 0.71	02/28/2013
	50,000(6)			$ 0.80	02/11/2013
	100,000			$ 0.75	12/16/2012
	50,000			$ 2.11	10/09/2011
Steven A. Johnson, Ph.D.	87,334	174,666		$ 0.20	08/22/2019
	66,667	33,333		$ 0.54	01/18/2018
	150,000			$ 1.30	12/18/2016
	100,000			$ 2.35	12/01/2015
	100,000			$ 2.68	12/16/2014
	50,000			$ 2.76	12/09/2013
	30,000			$ 0.75	12/16/2012

(1) Dr. Stoll received options in lieu of cash reimbursement of real estate expenses incurred in connection with the relocation of his principal residence to southern California. These options were fully vested on the date of grant and have an exercise price equal to $2.95, representing the closing price of the Company s common stock on the NYSE Amex on the grant date.

(2) Beginning in May 2003, Dr. Stoll voluntarily deferred his entire base salary, as previously reduced. In September 2003, Dr. Stoll agreed to accept stock options to purchase 14,545 shares of the Company s common stock in lieu of this deferred salary. The number of options issued represents $64,000 of his deferred salary divided by the closing sale price of the Company s common stock on the NYSE Amex on the date that Dr. Stoll s salary was re-instated in September 2003. These options were fully vested on the date of grant.

(3) Represents stock options issued in lieu of a portion of base salary. The number of options issued represents the dollar value of base salary not received by the named executive officer divided by the closing sale price of the Company s common stock on the NYSE Amex on the last trading day of the month during which the portion of base salary was not received by the named executive officer. These options were fully vested on the date of grant.

(4) In connection with his employment, Dr. Stoll was granted options to purchase 600,000 shares of common stock at an exercise price of $0.78 per share, representing the closing price of the Company s common stock on the NYSE Amex on the date of grant. Of the 600,000 options granted, 200,000 options vested immediately. Another 200,000 options vested upon securing the amendment to the Company s agreement with Les Laboratoires Servier in October 2002. The remaining 200,000 options vested upon the achievement of pre-determined milestones, all of which were met by the beginning of 2007.

(5) In connection with his employment, Dr. Varney was granted options to purchase 750,000 shares of common stock at an exercise price of $2.95 per share, representing the closing price of the Company s common stock on the date of grant. Of the 750,000 options granted, 100,000 options vested upon his first date of employment on January 30, 2006; 100,000 options vested one-year from his initial date of employment, or January 30, 2007; and 550,000 options vested in equal annual installments over a three-year period from the date of grant.

(6) During 2003, Mr. Coleman agreed to accept stock options in lieu of the cash bonus provided in his employment agreement. These options were fully vested on the date of grant and have an exercise price per share equal to $0.80, representing the closing price of the Company s common stock on the NYSE Amex on the grant date.

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Option Exercises and Stock Vested

None of the Company s named executive officers exercised any options to purchase shares of the Company s common stock or had any outstanding unvested stock awards during the year ended December 31, 2010.

Potential Payments Upon Termination or Change-In-Control

The named executive officers have each entered into employment agreements and/or severance agreements governing payments upon termination or in the event we are subject to a change-in-control. See Employment and Consulting Agreements on page 51. In March 2009, the named executive officers also entered into retention agreements, the impact of which is included in this section titled Potential Payments Upon Termination or Change-in-Control. The terms of such agreements are discussed under the heading Related Party Transactions on page 53.

Payments Made Upon Termination

Regardless of the manner in which a named executive officer s employment terminates, he or she shall be entitled to receive amounts earned during the term of his or her employment. Such amounts may include stock options awarded under our 1996 Stock Incentive Plan, 2006 Stock Incentive Plan, as amended, and independent of such plans, a portion of which may be subject to accelerated vesting, accrued obligations (including unused vacation pay), and a pro-rated bonus, if applicable. In the event that Dr. Stoll, Dr. Varney, Mr. Coleman or Ms. Messinger s employment is terminated by us without cause or by such named executive officer for good reason (as defined in their respective agreements), such person shall be entitled to receive a severance payment of twelve (12) months of his or her base salary (with the exception of Dr. Varney who shall be entitled to receive a severance payment of twelve (12) months of his base salary based upon his average monthly base salary for the twelve (12) months immediately prior to the termination event). Additionally, in such instance Ms. Messinger may be entitled to twelve (12) months continued health and benefits coverage.

Payments Made Upon Termination Due to Death or Disability

In the event of termination of employment due to the death or disability of a named executive officer, in addition to the payment of accrued obligations, the named executive officer will receive benefits under our disability plan or payments under our life insurance plan, as appropriate. Additionally, with respect to Dr. Stoll, Dr. Varney and Mr. Coleman, in the event of disability such named executive officers will receive a salary benefit equal to the difference between any insurance proceeds received and twelve (12) months salary.

Payments Made Upon a Change-In-Control Without Termination

If we are subject to a change-in-control, irrespective of whether a termination of employment occurs, all stock options held by the named executive officer will automatically vest and become exercisable (with the exception of Mr. Coleman who will receive accelerated vesting for one additional year and only if he is terminated). Additionally, pursuant to the terms of the March 2009 retention agreements, under certain circumstances each named executive officer will be entitled to receive a lump sum cash bonus equal to six (6) months of the executive s base salary.

Payments Made Upon Termination in Connection With a Change-In-Control

If a named executive officer s employment is terminated in connection with or, for Dr. Johnson within six (6) months following, a change of control without cause or for good reason (other than Dr. Johnson whose agreement does not include termination for good reason), then the named executive officers shall be entitled to the benefits listed under the headings Payments Made Upon Termination and Payments Made Upon a Change-In-Control Without Termination, included above. Additionally, in connection with such event, Dr. Johnson will receive a severance payment of twelve (12) months of his base salary and twelve (12) months continued health and benefits coverage. Further, pursuant to the terms of the March 2009 retention agreements, under certain circumstances each named executive officer will be entitled to receive a lump sum cash bonus equal to six (6) months of the executive s base salary.

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Employment and Consulting Agreements

Roger G. Stoll, Ph.D. has served as a director since April 2002 and became our Chairman, President and Chief Executive Officer in August 2002. In August 2008, Dr. Stoll became our Executive Chairman and Dr. Varney became our President and Chief Executive Officer. Dr. Stoll s employment agreement originally included a three-year term, was subsequently amended to include another three-year term expiring in August 2008, a one-year term expiring in August 2009, a one-year term expiring in August 2010 and another one-year term expiring in August 2011. As of December 31, 2010, his employment agreement called for a base salary of $370,000 per year. Dr. Stoll s base salary is subject to annual review by our Compensation Committee. In connection with the original offer for his employment, Dr. Stoll was granted options to purchase 600,000 shares of common stock at an exercise price of $0.78 per share, representing 100% of the fair market value as of the date of grant. Of the 600,000 options granted, 200,000 options vested immediately. Another 200,000 options vested upon securing the amendment to our agreement with our collaborative partner, Servier, in October 2002. The remaining 200,000 options vested upon achievement of pre-determined milestones, all of which were met by the beginning of 2007. Under the terms of his employment agreement, in the event of termination of his employment, under certain circumstances Dr. Stoll is entitled to compensation equal to twelve (12) months of his then current salary. In addition, in the event of his termination of employment, in certain circumstances, any vested options granted to Dr. Stoll remain exercisable for the remainder of the original option term and any unvested options granted to Dr. Stoll in connection with his employment, as detailed above, may be subject to accelerated vesting and remain exercisable for the remainder of the original option term. In the event of termination due to disability, Dr. Stoll will be entitled to receive a salary benefit equal to the difference between any insurance proceeds received and twelve (12) months salary. Further, in the event that we are subject to a change-in-control, all unvested options then held by Dr. Stoll shall be subject to accelerated vesting.

Mark A. Varney, Ph.D. joined us as Chief Operating Officer and Chief Scientific Officer in January 2006 and was named President and Chief Executive Officer in August 2008. His employment agreement provides for a three-year term through August 2011 and calls for a base salary of $362,000 per year as of December 31, 2010. Dr. Varney s employment agreement includes an annual bonus, at the discretion of our Board of Directors. In connection with his employment, Dr. Varney was granted options to purchase 750,000 shares of common stock at an exercise price of $2.95 per share, representing 100% of the fair market value as of the date of grant. The options have a ten-year term and vested according to the following schedule: (i) 100,000 upon the date of employment; (ii) 100,000 one year from the date of employment and (iii) 550,000 in equal annual installments over a three-year period. In connection with his naming as President and Chief Executive Officer, Dr. Varney was granted options to purchase 200,000 shares of common stock at an exercise price of $0.97 per share, representing 100% of the fair market value as of the date of grant. The options have a ten-year term and vest in equal annual installments over a three-year period. Pursuant to the terms of his employment agreement, we will provide Dr. Varney with a mortgage subsidy over five years, terminating on the earlier of the date of his termination of employment or July 2011, in the form of a monthly payment, whereby we will pay 6% of the principal amount of a mortgage (which principal amount shall not to exceed $1,200,000) on his primary residence during the first year, which amount declines by 1% each year thereafter, and which amount is grossed up by a factor of 1.6 to cover Dr. Varney s additional income tax liabilities. In addition to the foregoing, Dr. Varney received a $25,000 hiring bonus, $15,000 to cover miscellaneous relocation expenses, temporary housing and reimbursement of real estate closing fees, sales commissions and moving costs. In the event of termination of Dr. Varney s employment without cause or for good reason, under certain circumstances he is entitled to receive compensation of twelve (12) months of his base salary based upon the average monthly base salary for the twelve (12) months immediately prior to the termination event and his vested options will remain exercisable for the balance of their original terms. In the event of termination due to disability, Dr. Varney will be entitled to receive a salary benefit equal to the difference between any insurance proceeds received and twelve (12) months salary. In addition, in the event that we are subject to a change-in-control, any unvested options then held by Dr. Varney shall be subject to accelerated vesting.

Maria S. Messinger joined us as Controller in September 1994 and was named as Vice President, Chief Financial Officer and Corporate Secretary in December 1999. Under the terms of her severance agreement, in the event of termination of her employment, under certain circumstances Ms. Messinger is entitled to receive compensation of twelve (12) months of her then current annual base salary, which as of December 31, 2010 was $243,000. Ms. Messinger s severance agreement also includes a pro-rated bonus (if applicable) and continued employee benefits for a period of twelve (12) months following termination. Additionally, in the event that we are subject to a change-in-control, any unvested options then held by Ms. Messinger shall be subject to accelerated vesting.

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James H. Coleman joined us as Senior Vice President, Business Development in May 2000. His employment agreement, as amended to date, provides a base salary of $250,000 per year as of December 31, 2010. Mr. Coleman s employment agreement also provides an annual bonus between 0 and 50% of his annual base salary, at the discretion of the Chief Executive Officer and subject to approval by our Compensation Committee. In connection with his employment, Mr. Coleman was granted options to purchase 125,000 shares of common stock at an exercise price of $3.02 per share, representing 100% of the fair market value as of the date of grant. The options vested in equal annual installments over a three-year period and had a ten-year term. In the event of termination of his employment, Mr. Coleman is entitled, under certain circumstances, to receive compensation of twelve (12) months of his then current salary and any unvested options then held by Mr. Coleman shall be subject to accelerated vesting for an additional one year period. Additionally, in the event of termination due to disability, Mr. Coleman will be entitled to receive a salary benefit equal to the difference between any insurance proceeds received and twelve (12) months salary.

Steven A. Johnson, Ph.D. joined us as a Senior Scientist in June 1994 and was named as Vice President, Preclinical Development in January 2004 and appointed as an executive officer in February 2007. Under the terms of his severance agreement, in the event of termination of Dr. Johnson s employment without cause in connection with or within six (6) months following the date that we are subject to a change-in-control, under certain circumstances he is entitled to receive compensation of twelve (12) months of his then current salary, which as of December 31, 2010 was $221,000 per year. Dr. Johnson s severance agreement also provides continued employee benefits for a period of twelve (12) months following termination. In addition, in the event that we are subject to a change-in-control, any unvested options then held by Dr. Johnson shall be subject to accelerated vesting.

Under the consulting agreement with Dr. Gary Lynch, a co-founder and Scientific Director of the Company, Dr. Lynch currently receives a consulting fee of $30,000 per year. The term of Dr. Lynch s consulting agreement commenced in November 1987 and will continue until terminated by the respective parties thereto. The consulting agreement with Dr. Lynch obligates him to make himself available to us for consulting and advisory services for an average of three days per month.

Director Compensation

The Compensation Committee uses a combination of cash and stock-based incentive compensation to attract and retain qualified candidates to serve on the Board of Directors. In setting director compensation, the Compensation Committee considers the significant amount of time that directors expend in fulfilling their duties to us as well as the skill-level required by us of members of the Board of Directors. Similar to executive officers, directors are subject to a minimum share ownership requirement. The policy requires directors to acquire and maintain ownership of at least 30,000 shares of our common stock before December 16, 2007, or within three years of commencement of service as a director, whichever is later. Thereafter, the policy provides for the withholding of fees until the ownership level has been achieved by such director. The Board of Directors has determined that all directors serving us have met the minimum share ownership requirement.

During 2009, each non-employee director was entitled to receive $4,000 at each in-person Board of Directors meeting attended and $2,000 for each related Board of Directors meeting attended by telephone. Beginning in February 2009, the Board of Directors waived the fees related to its telephonic meetings in an effort to conserve our financial resources. In May 2010, the Board reinstated the fees for Board of Directors meetings attended by telephone.

Also, the Chairman of the Compensation Committee, the Governance and Nominations Committee and the Research and Development Committee is entitled to receive $2,000 for each committee meeting attended and other members of the respective committees are entitled to receive $1,000 for each committee meeting attended. The Chairman of the Audit Committee is entitled to receive $3,000 for each committee meeting attended and the remaining members of the Audit Committee are entitled to receive $1,000 for each committee meeting attended. In September 2009, the Board of Directors deferred payment of its committee fees in an effort to conserve our financial resources. In May 2010, the Board reinstated the payment of committee fees.

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Each non-employee director is automatically granted options to purchase 30,000 shares of common stock upon commencement of service as a director. Additionally, each non-employee director is granted options to purchase 30,000 shares of common stock on the date of the first meeting of the Board of Directors for the relative calendar year. These nonqualified options described above each have an exercise price equal to 100% of the fair market value of the common stock on the date of grant, have a ten-year term and vest in equal increments of 33 1/3% on each anniversary date of the dates of grant, and are otherwise subject to the terms and provisions of the 2006 Stock Incentive Plan.

The above cash compensation and nonqualified option grant provisions do not apply to non-employee directors who serve on the Board of Directors to oversee an investment in us. Compensation for such non-employee directors, if appropriate, is determined separately. As of December 31, 2010, none of our directors served on the Board of Directors in such capacity.

Director Summary Compensation Table

The table below summarizes the total compensation paid or earned by each of the non-employee directors for the fiscal year ended December 31, 2010. Directors who are also our employees did not receive any additional compensation for services as a director.

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)[1]	All Other Compensation ($)[2]	Total ($)
Robert F. Allnutt	$ 18,000	$ 4,122[3]		$ 22,122
John F. Benedik, CPA	$ 22,000	$ 4,122[4]		$ 26,122
Charles J. Casamento	$ 20,000	$ 4,122[5]		$ 24,122
Carl W. Cotman, Ph.D.	$ 16,000	$ 4,122[6]		$ 20,122
Peter F. Drake, Ph.D.	$ 12,000	$ 4,122[7]		$ 16,122
M. Ross Johnson, Ph.D.	$ 18,000	$ 4,122[8]		$ 22,122

(1) Amounts represent the aggregate grant date estimated fair value of the option awards using the Black-Scholes option pricing model. Assumptions used in the calculation of these amounts include a weighted-average risk free interest rate of 3.2%; .a dividend yield of 0%; a weighted average life of 6.9 years and a volatility factor of the expected market price of our common stock of 108%.

(2) In accordance with Securities and Exchange Commission rules, All Other Compensation in the form of perquisites and other personal benefits has been omitted where the aggregate amount of such perquisites and other personal benefits was less than $10,000. The amounts reflected in this column represent fees paid to such directors in their capacities as consultants to us.

(3) Mr. Allnutt had an aggregate of 300,000 option awards outstanding as of December 31, 2010.

(4) Mr. Benedik had an aggregate of 175,000 option awards outstanding as of December 31, 2010.

(5) Mr. Casamento had an aggregate of 315,000 option awards outstanding as of December 31, 2010.

(6) Dr. Cotman had an aggregate of 260,000 option awards outstanding as of December 31, 2010.

(7) Dr. Drake had an aggregate of 250,000 option awards outstanding as of December 31, 2010.

(8) Dr. Johnson had an aggregate of 320,000 option awards outstanding as of December 31, 2010.

RELATED PARTY TRANSACTIONS

Except as set forth below, there were no disclosable transactions with related persons under Item 404 of Regulation S-K during the fiscal year ended December 31, 2009 or currently proposed.

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In March 2009, our executive officers and other key personnel entered into retention bonus agreements to foster the continuous employment of such individuals. Under such agreements, each executive officer will be entitled to receive a lump sum cash bonus equal to six (6) months of the executive s base salary in the event of a change in control, as defined in our 2006 Stock Incentive Plan, occurs and the executive remains continuously employed with us, our successor or, if applicable, the ultimate parent of any such successor (collectively referred to as the Surviving Entity), or any subsidiary thereof, through the date occurring three (3) months post-change of control, or such shorter period as deemed necessary by the Surviving Entity (referred to as the Payment Date), to allow for an orderly transition of personnel and information and to allow for an appropriate integration process, as needed. The amount of the bonus for executive officers, based on base salaries as of December 31, 2010, would be as follows: Dr. Stoll - $185,000, Dr. Varney - $181,000, Ms. Messinger - $121,500, Mr. Coleman - $125,000 and Dr. Johnson - $110,500. The retention bonus agreements provide that the bonus shall be payable by the Surviving Entity on or as soon as practicable following the Payment Date, but no later than 15 days thereafter, and shall be determined without regard to any reduction of base salary applicable to our executives subsequent to March 13, 2009 and prior to a change in control. In the event that the executive officer s employment is terminated by the Surviving Entity or a subsidiary thereof after a change in control and prior to the Payment Date, in certain circumstances where the termination is without cause or for good reason, the bonus shall be payable by the Surviving Entity as soon as practicable following the date of termination of the executive officer s employment (but no later than sixty (60) days thereafter), subject to the executive officer executing and not revoking a general release of all claims against the Surviving Entity in a form acceptable to the Surviving Entity within sixty (60) days following such termination of employment.

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PRINCIPAL STOCKHOLDERS

The following table sets forth, to our knowledge, certain information regarding the beneficial ownership of our common stock as of December 31, 2010, by (i) each person known by us to be the beneficial owner of more than 5% of the outstanding common stock, (ii) each of our directors and nominees, (iii) each of the named executive officers in the Summary Compensation Table and (iv) all of our executive officers and directors as a group. Except as indicated in the footnotes to this table, we believe that the persons named in this table have sole voting and investment power with respect to the shares of common stock indicated.

Directors, Officers and 5% Stockholders[1]	Shares Beneficially Owned[2]	Percent of Common Stock Beneficially Owned [2]
Robert F. Allnutt	295,500[3]	*
John F. Benedik	135,000[4]	*
Charles J. Casamento	260,000[5]	*
James H. Coleman	1,017,184[6]	1.3
Carl W. Cotman, Ph.D.	264,500[7]	*
Peter F. Drake, Ph.D.	230,000[8]	*
M. Ross Johnson, Ph.D.	280,000[9]	*
Steven A. Johnson, Ph.D.	648,096[10]	*
Maria S. Messinger, CPA	779,885[11]	*
Roger G. Stoll, Ph.D.	2,859,879[12]	3.5
Mark A. Varney, Ph.D.	1,559,334[13]	1.9
All executive officers and directors as a group (11 persons)	8,329,378[14]	9.6
Samyang Optics Co., Ltd.	14,527,212[15]	17.5

* Less than one percent

(1) Except as otherwise indicated, the address of such beneficial owner is at the Company s principal executive offices, 15231 Barranca Parkway, Irvine, California 92618.

(2) Applicable percentage of ownership at December 31, 2010 is based upon 78,858,197 shares of common stock outstanding. Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and includes voting and investment power with respect to shares shown as beneficially owned. Shares of common stock subject to options or warrants currently exercisable or exercisable within 60 days of December 31, 2010 are deemed outstanding for computing the shares and percentage ownership of the person holding such options or warrants, but are not deemed outstanding for computing the percentage ownership of any other person or entity.

(3) Includes 230,000 shares that may be purchased upon exercise of options within 60 days of December 31, 2010.

(4) Includes 105,000 shares that may be purchased upon exercise of options within 60 days of December 31, 2010.

(5) Includes 245,000 shares that may be purchased upon exercise of options within 60 days of December 31, 2010. Excludes 17,653 shares held by Mr. Casamento in a trust over which he does not exercise control.

(6) Includes 809,597 shares that may be purchased upon exercise of options within 60 days of December 31, 2010. Beneficial ownership of these shares is shared and held by the James Henry and Nancy Irene Coleman III Revocable Trust.

(7) Includes 190,000 shares that may be purchased upon exercise of options within 60 days of December 31, 2010.

(8) Includes 180,000 shares that may be purchased upon exercise of options within 60 days of December 31, 2010.

(9) Includes 250,000 shares that may be purchased upon exercise of options within 60 days of December 31, 2010.

(10) Includes 617,334 shares that may be purchased upon exercise of options within 60 days of December 31, 2010.

(11) Includes 730,821 shares that may be purchased upon exercise of options within 60 days of December 31, 2010.

(12) Includes 2,759,879 shares that may be purchased upon exercise of options within 60 days of December 31, 2010.

(13) Includes 1,529,334 shares that may be purchased upon exercise of options within 60 days of December 31, 2010.

(14) Includes 7,646,965 shares that may be purchased upon exercise of options within 60 days of December 31, 2010.

(15) Includes 4,081,633 shares that may be purchase upon exercise of warrants within 60 days of December 31, 2010.

We are not aware of any arrangements that may at a subsequent date result in us being subject to a change of control.

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DESCRIPTION OF SECURITIES WE ARE OFFERING

In this offering, we are offering a maximum of _____ units, each consisting of _____ shares of common stock and _____ warrants to purchase _____ shares of common stock. This prospectus also relates to the offering of shares of our common stock issuable upon the exercise of warrants issued to the investors in this offering.

The units consisting of shares of our common stock, warrants convertible into shares of common stock and the common stock issuable upon exercise of the warrants, and the placement agent warrants and shares of our common stock issuable upon exercise of the placement agent warrants, are collectively referred to herein as the securities.

General Background

Our authorized capital stock currently consists of 205,000,000 shares of common stock, $0.001 par value per share, and 5,000,000 shares of preferred stock, $0.001 par value per share.

Common Stock

As of December 31, 2010, we had issued and outstanding 78,858,197 shares of common stock, held by 402 stockholders of record. In addition, as of September 30, 2010, we had outstanding options to acquire 12,883,089 shares of common stock, outstanding warrants to acquire 24,126,952 shares of common stock and Series B convertible preferred stock convertible into 3,679 shares of common stock.

Except as required by law, holders of our common stock are entitled to vote on all matters as a single class, and each holder of common stock is entitled to one vote for each share of common stock owned. Holders of common stock do not have cumulative voting rights.

Holders of our common stock are entitled to receive ratably any dividends that may be declared by the board of directors out of legally available funds, subject to any preferential dividend rights of any outstanding preferred stock. Upon any liquidation, dissolution, or winding up of Cortex Pharmaceuticals, Inc., holders of our common stock are entitled to share ratably in all assets remaining available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock.

Holders of our common stock have no preemptive, subscription, redemption or conversion rights. Our outstanding shares of common stock are validly issued, fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of holders of shares of any series of preferred stock which we may designate and issue in the future.

Our common stock is not currently traded on any national securities exchange and instead is quoted on the OTC Bulletin Board under the symbol CORX.OB.

Stockholder Rights Plan

On February 5, 2002, our board of directors approved the adoption of a stockholder rights plan and declared a divided distribution of one right for each outstanding share of our common stock on February 15, 2002. Each share of our common stock presently issued and outstanding includes one right and each share of our common stock that may be issued after the date hereof will also include one right. The rights automatically attach to outstanding shares of our common stock and no separate certificates are issued. The rights trade only together with shares of our common stock.

Each right allows its holder to purchase a unit consisting of one one-thousandth of a share of our Series A junior participating preferred stock at a purchase price of $75.00 per unit, subject to adjustment. The rights are not currently exercisable, but will become exercisable upon the earlier of (i) 10 days following a public announcement that a person or group of affiliated or associated persons has acquired, or obtained the right to acquire, beneficial ownership of 15% or more of our outstanding common stock or (ii) 10 business days following the commencement of a tender offer or exchange offer that would result in a person or group beneficially owning 15% or more of our outstanding common stock. Once the rights become exercisable, each holder of a right may purchase shares of our common stock, or, under certain circumstances, shares of the common stock of the acquiring person or group, having a value equal to two times the exercise price of the right.

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Our board of directors may redeem the rights in whole, at a redemption price of $0.001 per right, at any time until 10 days following the acquisition of 15% or more of our outstanding common stock by a person or group. Unless earlier redeemed or exchanged by us, the rights will expire on February 15, 2012.

Warrants

The following is a brief summary of the material terms and provisions of the warrants issuable in this offering. The summary of the warrants is subject to and qualified in its entirety by the form of warrant. We urge you to review the form of warrant, which has been filed as an exhibit to the registration statement of which this prospectus forms a part with the SEC in connection with this offering, for a complete description of the terms and conditions applicable to the warrants. This prospectus also relates to the shares of our common stock issuable upon the exercise, if any, of the warrants issued to the investors in this offering.

Each purchaser of units will receive, for each unit purchased, _____ shares of our common stock and _____ warrants representing the right to purchase _____ shares of common stock at an exercise price of $_____ per share. The warrants are exercisable on or after the date of issuance and will expire on the _____ anniversary of the date the warrants are issued. The exercise price is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price and number of warrants held by a purchaser (or such purchaser s direct or indirect transferee) are subject to appropriate adjustment in the event of cash dividends or other distributions to holders of shares of our common stock.

There is no established public trading market for the warrants, and we do not expect a market to develop. We do not intend to apply to list the warrants on any securities exchange. Without an active market, the liquidity of the warrants will be limited. In addition, in the event our common stock price does not exceed the per share exercise price of the warrants during the period when the warrants are exercisable, the warrants will not have any value.

Holders of the warrants may exercise their warrants to purchase shares of our common stock on or before the expiration date by delivering an exercise notice, appropriately completed and duly signed, and payment of the exercise price for the number of shares for which the warrant is being exercised. In the event that the registration statement relating to the shares of common stock issuable upon the exercise of the warrants is not effective and another exemption from registration is not available, a holder of warrants will have the right, in its sole discretion, to exercise its warrants for a net number of warrant shares pursuant to the cashless exercise procedures specified in the warrants. Warrants may be exercised in whole or in part, and any portion of a warrant not exercised prior to the expiration date shall be and become void and of no value. The absence of an effective registration statement or applicable exemption from registration does not alleviate our obligation to deliver common stock issuable upon exercise of a warrant.

Upon the holder s exercise of a warrant, we will issue the shares of common stock issuable upon exercise of the warrant within three trading days of our receipt of notice of exercise and payment of the aggregate exercise price, subject to surrender of the warrant.

The shares of common stock issuable on exercise of the warrants will be, when issued in accordance with the warrants, duly and validly authorized, issued and fully paid and non-assessable. We will authorize and reserve at least that number of shares of common stock equal to the number of shares of common stock issuable upon exercise of all outstanding warrants.

The exercisability of the warrants may be limited in certain circumstances if, upon exercise, the holder (together with the holder s affiliates and any other persons or entities acting together with the holder as a group) would hold more than 4.99% of our total common stock issued and outstanding. The holder of the warrant has the ability, upon providing us not less than 61 days prior written notice, to increase or decrease the foregoing percentage, provided that the percentage cannot at any time exceed 9.99%. The absence of an effective registration statement relating to the common stock issuable upon exercise of the warrant will not provide the holder with the right to net-settle the warrant in cash.

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Amendments and waivers of the terms of the warrants require the written consent of the holders of warrants representing at least a majority of the shares issuable upon the then outstanding warrants, except that no such action may increase the exercise price of a warrant or decrease the number of shares or class of stock obtainable upon exercise of a warrant without the written consent of the holder. No amendment will be effective unless it applies to all of the warrants then outstanding.

THE HOLDER OF A WARRANT WILL NOT POSSESS ANY RIGHTS AS A STOCKHOLDER UNDER THAT WARRANT UNTIL THE HOLDER EXERCISES THE WARRANT. THE WARRANTS MAY BE TRANSFERRED INDEPENDENT OF THE COMMON STOCK WITH WHICH THEY WERE ISSUED, SUBJECT TO APPLICABLE LAWS

Anti-takeover Effects of Provisions of Delaware Law and our Charter

Certain provisions of our second restated certificate of incorporation may make it more difficult to acquire control of us by various means. These provisions could deprive our stockholders of opportunities to realize a premium on the shares of common stock owned by them. In addition, these provisions may adversely affect the prevailing market price of our stock. These provisions are intended to:

- enhance the likelihood of continuity and stability in the composition of the board and in the policies formulated by the board;
- discourage certain types of transactions which may involve an actual or threatened change in control of Cortex Pharmaceuticals;
- discourage certain tactics that may be used in proxy fights;
- encourage persons seeking to acquire control of us to consult first with the board of directors to negotiate the terms of any proposed business combination or offer; and
- reduce our vulnerability to an unsolicited proposal for a takeover that does not contemplate the acquisition of all our outstanding shares or that is otherwise unfair to our stockholders.

Our second restated certificate of incorporation provides that special meetings of our stockholders may be called only by the board of directors or an officer authorized by it to do so. This limitation on the right of stockholders to call a special meeting could make it more difficult for stockholders to initiate actions that are opposed by the board of directors. These actions could include the removal of an incumbent director or the election of a stockholder nominee as a director. They could also include the implementation of a rule requiring stockholder ratification of specific defensive strategies that have been adopted by the board of directors with respect to unsolicited takeover bids. In addition, the limited ability of the stockholders to call a special meeting of stockholders may make it more difficult to change the existing board and management.

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Our authorized but unissued shares of common stock are available for future issuance without stockholder approval. These additional shares may be utilized for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. The existence of authorized but unissued shares of common stock and preferred stock could render more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

The Delaware General Corporation Law, or DGCL, provides generally that the affirmative vote of a majority of the shares outstanding and entitled to vote is required to amend a corporation s certificate of incorporation.

Indemnification of Directors and Officers

The DGCL permits a corporation to indemnify its current and former directors and officers against expenses, judgments, fines and amounts paid in connection with a legal proceeding. To be indemnified, the person must have acted in good faith and in a manner the person reasonably believed to be in, and not opposed to, the best interests of the corporation. With respect to any criminal action or proceeding, the person must not have had reasonable cause to believe the conduct was unlawful.

The DGCL permits a present or former director or officer of a corporation to be indemnified against certain expenses if the person has been successful, on the merits or otherwise, in defense of any proceeding brought against such person by virtue of the fact that such person is or was an officer or director of the corporation. In addition, the DGCL permits the advancement of expenses relating to the defense of any proceeding to directors and officers contingent upon the person s commitment to repay advances for expenses against such person is not ultimately entitled to be indemnified.

The DGCL provides that the indemnification provisions contained in the DGCL are not exclusive of any other right that a person seeking indemnification may have or later acquire under any provision of a corporation s by-laws, by any agreement, by any vote of stockholders or disinterested directors or otherwise. Furthermore, the DGCL provides that a corporation may maintain insurance, at its expense, to protect its directors and officers against any expense, liability or loss, regardless of whether the corporation has the power to indemnify such persons under the DGCL.

Our second restated certificate of incorporation provides that, to the extent permitted by the DGCL, we will indemnify our current and former directors and officers against all expenses actually and reasonably incurred by them as a result of their being threatened with or otherwise involved in any action, suit or proceeding by virtue of the fact that they are or were one of our officers or directors.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to our directors and officers, we have been advised that, although the validity and scope of the governing statute have not been tested in court, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In addition, indemnification may be limited by state securities laws.

PLAN OF DISTRIBUTION

_____, which we refer to as the placement agent, has agreed to act as the exclusive placement agent in connection with this offering subject to the terms and conditions of a placement agency agreement, which we will enter into prior to the closing of the offering. The placement agent may engage selected dealers to assist in the placement of the securities. The placement agent is not purchasing or selling any securities offered by this prospectus, nor is it required to arrange the purchase or sale of any specific number or dollar amount of the securities, but has agreed to use its commercially reasonable efforts to arrange for the sale of all of the securities offered hereby. We will enter into purchase agreements directly with investors in connection with this offering and we may not sell the entire amount of securities offered pursuant to this prospectus. The price per securities has been determined based upon arm s-length negotiations between the purchasers and us.

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The placement agent proposes to arrange for the sale to one or more purchasers of the securities offered pursuant to this prospectus through direct purchase agreements between the purchasers and us.

Commissions and Expenses

We have agreed to pay the placement agent a fee equal to _____ percent in cash plus _____ percent in form of warrants of the gross proceeds from the sale of securities in this offering, excluding any proceeds received by us after the consummation of the offering upon the exercise of any warrants or similar rights.

The following table shows the per unit and total cash placement agent s 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 offered hereby:

Per Unit	$
Total	$

In addition, we have agreed to issue to the placement agent, or its designees, warrants exercisable for an aggregate of _____ percent of the gross proceeds received from the securities sold in this offering. The placement agent warrants will be exercisable at any time beginning on the date that is six months from the date hereof until 5:00 p.m. (New York time) on the date that is _____ years following the date hereof at an exercise price of $_____ per share. This prospectus also covers the sale of the placement agent warrants and the shares of common stock issuable upon the exercise of the placement agent warrants. As required by the Financial Industry Regulatory Authority, Inc., or FINRA, neither the placement agent warrants nor any shares of common stock issued upon exercise of the placement agent warrants may 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 such securities by any person for a period of 180 days immediately following the date hereof, except the transfer of any security:

by operation of law or by reason of our reorganization;

to any FINRA member firm participating in the 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 the placement agent or related person 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 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.

Because there is no minimum offering amount required as a condition to closing in this offering, the actual total offering commissions, if any, are not presently determinable and may be substantially less than the maximum amount set forth above. We have also agreed to reimburse the placement agent for its out-of-pocket expenses in an aggregate amount not to exceed $35,000.

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Our obligation to issue and sell securities to the purchasers is subject to the conditions set forth in the purchase agreements, which may be waived by us at our discretion. A purchaser s obligation to purchase securities is subject to the conditions set forth in his or her purchase agreement as well, which may also be waived.

We currently anticipate that the sale of the units will be completed on or about _____ __, 2011. We estimate the total offering expenses of this offering that will be payable by us, excluding the placement agent s fee, will be approximately $_____ , which includes legal and printing costs, various other fees and reimbursement of the placements agent s expenses. At the closing, The Depository Trust Company will credit the shares of common stock to the respective accounts of the investors.

Indemnification

We have agreed to indemnify the placement agent against liabilities under the Securities Act of 1933, as amended. We have also agreed to contribute to payments the placement agent may be required to make in respect of such liabilities.

Lock-up Agreements

We and our officers and directors have agreed, subject to certain exceptions, for a period of 30 days after the date of this prospectus, not to offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of, directly or indirectly any common shares or any securities convertible into or exchangeable for our common shares either owned as of the date hereof or thereafter acquired without the prior written consent of the placement agent. This 30-day period may be extended if (1) during the last 17 days of the 30-day period, we issue an earnings release or material news or a material event regarding us occurs or (2) prior to the expiration of the 30-day period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 30-day period, then the period of such extension will be 18-days, beginning on the issuance of the earnings release or the occurrence of the material news or material event. If after any announcement described in clause (2) of the preceding sentence, we announce that we will not release earnings results during the 16-day period, the lock-up period shall expire the later of the expiration of the 30-day period and the end of any extension of such period made pursuant to clause (1) of the preceding sentence. The placement agent may, in its sole discretion and at any time or from time to time before the termination of the lock-up period, without notice, release all or any portion of the securities subject to lock-up agreements.

Electronic Distribution

This prospectus may be made available in electronic format on websites or through other online services maintained by the placement agent, or by an affiliate. Other than this prospectus in electronic format, the information on the placement agent s website and any information contained in any other website maintained by the placement agent is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the placement agent, and should not be relied upon by investors.

The foregoing does not purport to be a complete statement of the terms and conditions of the placement agency agreement and purchase agreements. A copy of the placement agency agreement and the form of purchase agreement with the investors are included as exhibits to our current report on Form 8-K that will be filed with the SEC. See Where You Can Find Additional Information on page 63.

Regulation M Restrictions

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the units sold by them while acting as principals might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the placement agent would be required to comply with the requirements of the Securities Act and the Securities Exchange Act of 1934, as amended, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of our securities by the placement agent acting as a principal. Under these rules and regulations, the placement agent:

must not engage in any stabilization activity in connection with our securities; and

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must not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

Affiliations

The placement agent and its affiliates may provide various investment banking, financial advisory and other services to us and our affiliates for which services they have received, and may in the future receive, customary fees. In the course of their businesses, the placement agent and its affiliates may actively trade our securities or loans for their own account or for the accounts of customers, and, accordingly, the placement agent and its affiliates may at any time hold long or short positions in such securities or loans.

Notice to Investors in the United Kingdom

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive, each referred to as a Relevant Member State, an offer to the public of any securities which are the subject of the offering contemplated by this prospectus may not be made in that Relevant Member State except that an offer to the public in that Relevant Member State of any such securities may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

(a) to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

(b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 and (3) an annual net turnover of more than 50,000,000, as shown in its last annual or consolidated accounts;

(c) by the placement agent to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive); or

(d) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares shall result in a requirement for the publication by the issuer or the placement agent of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer to the public in relation to any security in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase such securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

The placement agent has represented, warranted and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000 (the FSMA)) received by it in connection with the issue or sale of any of our securities in circumstances in which section 21(1) of the FSMA does not apply to the issuer; and

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(b) it has complied with and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to our securities in, from or otherwise involving the United Kingdom.

European Economic Area

In particular, this document does not constitute an approved prospectus in accordance with European Commission s Regulation on Prospectuses no. 809/2004 and no such prospectus is to be prepared and approved in connection with this offering. Accordingly, in relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (being the Directive of the European Parliament and of the Council 2003/71/EC and including any relevant implementing measure in each Relevant Member State) (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) an offer of securities to the public may not be made in that Relevant Member State prior to the publication of a prospectus in relation to such securities which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that the placement agent may, with effect from and including the Relative Implementation Date, make an offer of securities to the public in that Relevant Member State at any time:

to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 euros; and (3) an annual net turnover of

more than 50,000,000 euros, as shown in the last annual or consolidated accounts; orin any other circumstances which do not require the publication by the issuer of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer of securities to the public in relation to any common shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe such securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State. For these purposes the _____ are securities.

LEGAL MATTERS

The validity of the securities being offered hereby and certain other legal matters will be passed on by Stradling Yocca Carlson & Rauth, a Professional Corporation, Newport Beach, California. Lowenstein Sandler, PC, Roseland, New Jersey, is representing the placement agent in this offering.

EXPERTS

Haskell & White LLP, an independent registered public accounting firm, has audited our balance sheets as of December 31, 2009 and December 31, 2008, and the related statements of operations, stockholders equity and cash flows for each of the years in the three-year period ended December 31, 2009, which are included in this prospectus and registration statement. Our financial statements are included in reliance on Haskell & White LLP s report, given on the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed a registration statement on Form S-1 with the SEC relating to the securities offered by this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. We have omitted parts of the registration statement, as permitted by the rules and regulations of the SEC. Statements contained in this prospectus as to the contents of any contract or other document referred to are not necessarily complete and in each instance reference is made to the copy of such contract or other document filed as an exhibit to the registration statement, each such statement being qualified in all respects by such reference. For further information with respect to us and the securities offered hereby, reference is made to such registration statement, exhibits and schedules.

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We are subject to the information and periodic reporting requirements of the Exchange Act, and in accordance therewith file periodic reports, current reports, proxy statements and other information with the SEC. Such periodic reports, current reports, proxy statements, other information and a copy of the registration statement on Form S-1 may be inspected by anyone without charge and copies of these materials may be obtained upon the payment of the fees prescribed by the SEC, at the Public Reference Room maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The registration statement on Form S-1 and the periodic reports, current reports, proxy statements and other information filed by us are also available through the Internet web site maintained by the SEC at the following address: http://www.sec.gov.

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Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors

Cortex Pharmaceuticals, Inc.

We have audited the accompanying balance sheets of Cortex Pharmaceuticals, Inc. (the Company) as of December 31, 2009 and 2008, and the related statements of operations, stockholders equity (deficit) and comprehensive loss, and cash flows for each of the years in the three-year period ended December 31, 2009. Cortex Pharmaceuticals, Inc. s management is responsible for these financial statements. Our responsibility is to express an opinion on these 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, 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, the financial statements referred to above present fairly, in all material respects, the financial position of Cortex Pharmaceuticals, Inc. as of December 31, 2009 and 2008, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2009 in conformity with accounting principles generally accepted in the United States of America.

/s/ HASKELL & WHITE LLP

Irvine, California

April 7, 2010

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Cortex Pharmaceuticals, Inc.

BALANCE SHEETS

	December 31, 2009	December 31, 2008
Assets		
Current assets:		
Cash and cash equivalents	$ 226,466	$ 1,430,886
Marketable securities		2,710,434
Other current assets	19,578	154,884
Total current assets	246,044	4,296,204
Furniture, equipment and leasehold improvements, net	383,347	809,458
Deferred offering costs	29,917	
Other	46,667	46,667
	$ 705,975	$ 5,152,329
Liabilities and Stockholders Equity (Deficit)		
Current liabilities:		
Accounts payable	$ 1,575,240	$ 1,123,015
Accrued wages, salaries and related expenses	331,414	293,746
Advance for MCI project	315,742	311,723
Deferred rent		27,123
Total current liabilities	2,222,396	1,755,607
Other non-current liability	11,288	
Total liabilities	2,233,684	1,755,607
Commitments and Contingencies (Note 7)		
Stockholders equity (deficit):		
Series B convertible preferred stock, $0.001 par value; $0.6667 per share liquidation preference; shares authorized: 3,200,000; shares issued and outstanding: 37,500; common shares issuable upon conversion: 3,679	21,703	21,703
Common stock, $0.001 par value; shares authorized: 205,000,000; shares issued and outstanding: 68,412,618 (December 31, 2009) and 47,615,209 (December 31, 2008)	68,413	47,615
Additional paid-in capital	118,525,140	112,686,078
Unrealized loss, available for sale marketable securities		(3,884)
Accumulated deficit	(120,142,965)	(109,354,790)
Total stockholders equity (deficit)	(1,527,709)	3,396,722
	$ 705,975	$ 5,152,329

See accompanying notes.

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Cortex Pharmaceuticals, Inc.

STATEMENTS OF OPERATIONS

	Year ended December 31, 2009	Year ended December 31, 2008	Year ended December 31, 2007
Revenues:			
Research and license revenue	$	$	$
Grant revenue			
Total revenues			
Operating expenses (A):			
Research and development	4,597,522	10,780,324	9,327,298
General and administrative	3,737,235	4,258,603	4,319,918
Total operating expenses	8,334,757	15,038,927	13,647,216
Loss from operations	(8,334,757)	(15,038,927)	(13,647,216)
Interest income, net	16,580	443,061	678,053
Loss on sale of fixed assets	(123,177)		
Net loss	$ (8,441,354)	$ (14,595,866)	$ (12,969,163)
Accretion of beneficial conversion feature on 0% Series E Convertible Preferred Stock	(831,704)		
Accretion of beneficial conversion feature on Series F Convertible Preferred Stock	(1,515,117)		
Net loss applicable to common stock	$ (10,788,175)	$ (14,595,866)	$ (12,969,163)
Net loss per share, basic and diluted	$ (0.19)	$ (0.31)	$ (0.31)
Shares used in basic and diluted calculation	55,782,949	47,571,680	42,133,152
(A) Operating expenses include the following non-cash stock-based compensation charges:			
Research and development	$ 226,007	$ 721,668	$ 1,371,351
General and administrative	347,167	577,417	865,831
	$ 573,174	$ 1,299,085	$ 2,237,182

See accompanying notes.

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Cortex Pharmaceuticals, Inc.

STATEMENTS OF STOCKHOLDERS EQUITY (DEFICIT) AND COMPREHENSIVE LOSS

	Series B convertible preferred stock	0% Series E convertible preferred stock	Series F convertible preferred stock	Common stock	Additional paid-in capital	Accumulated other comprehensive income (loss)	Accumulated deficit	Total
Balance, December 31, 2006	$ 21,703	$	$	$ 34,953	$ 90,056,734	$ (3,205)	$ (81,789,761)	$ 8,320,424
Sale of 5,021,427 shares of common stock, $1.12 per share, net of expenses				5,022	5,075,279			5,080,301
Sale of 7,075,000 shares of common stock, $2.00 per share, net of expenses				7,075	13,128,336			13,135,411
Issuance of 333,667 shares of common stock upon exercise of warrants				333	612,887			613,220
Issuance of 159,311 shares of common stock upon exercise of stock options				159	229,091			229,250
Issuance and vesting of stock options and warrants for consultants and other service providers					77,039			77,039
Non-cash stock-based employee compensation charges					2,160,142			2,160,142
Comprehensive loss								
Net loss							(12,969,163)	(12,969,163)
Unrealized gain on available for sale U.S. Government and other marketable securities						30,278		30,278
Comprehensive loss						30,278	(12,969,163)	(12,938,885)
Balance, December 31, 2007	$ 21,703	$	$	$ 47,542	$ 111,339,508	$ 27,073	$ (94,758,924)	$ 16,676,902
Issuance of 22,750 shares of common stock upon exercise of stock options				23	8,509			8,532
Issuance of 50,033 shares of common stock to employees in exchange for accrued paid time off				50	38,976			39,026
Issuance and vesting of stock options and warrants for consultants and other service providers					49,619			49,619
Non-cash stock-based employee compensation charges					1,249,466			1,249,466
Comprehensive loss								

Net loss						(14,595,866)	(14,595,866)
Unrealized loss on available for sale U.S. Government and other marketable securities					(30,957)		(30,957)
Comprehensive loss					(30,957)	(14,595,866)	(14,626,823)
Balance, December 31, 2008	$ 21,703	$	$	$ 47,615	$ 112,686,078	$ (3,884)	$ (109,354,790)	$ 3,396,722

Continued

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Cortex Pharmaceuticals, Inc.

STATEMENTS OF STOCKHOLDERS EQUITY (DEFICIT) AND COMPREHENSIVE LOSS *(CONTINUED)*

	Series B convertible preferred stock	0% Series E convertible preferred stock	Series F convertible preferred stock	Common stock	Additional paid-in capital	Accumulated other comprehensive income (loss)	Accumulated deficit	Total
Balance, December 31, 2008	$ 21,703	$	$	$ 47,615	$ 112,686,078	$ (3,884)	$ (109,354,790)	$ 3,396,722
Sale of 1,475 shares of 0% Series E Convertible Preferred Stock, net of expenses		831,704			412,984			1,244,688
Beneficial conversion feature of 0% Series E Convertible Preferred Stock					831,704		(831,704)	
Issuance of 8,676,471 shares of common stock upon exercise of 0% Series E Convertible Preferred Stock		(831,704)		8,676	823,028			
Sale of 4,029 shares of Series F Convertible Preferred Stock, net of expenses			1,284,225		410,952			1,695,177
Beneficial conversion feature of Series F Convertible Preferred Stock					1,515,117		(1,515,117)	
Issuance of 12,120,938 shares of common stock upon exercise of Series F Convertible Preferred Stock			(1,284,225)	12,122	1,272,103			
Issuance and vesting of stock options and warrants for consultants and other service providers					3,346			3,346
Non-cash stock-based employee compensation charges					569,828			569,828
Comprehensive loss								
Net loss							(8,441,354)	(8,441,354)
Realized gain on available for sale U.S. Government and other marketable securities						3,884		3,884
Comprehensive loss							(8,441,354)	(8,437,470)

Balance, December 31, 2009	$ 21,703	$	$	$ 68,413	$ 118,525,140	$	$ (120,142,965)	$ (1,527,709)

See accompanying notes.

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Cortex Pharmaceuticals, Inc.

STATEMENTS OF CASH FLOWS

	Year ended December 31, 2009	Year ended December 31, 2008	Year ended December 31, 2007
Cash flows from operating activities:			
Net loss	$ (8,441,354)	$ (14,595,866)	$ (12,969,163)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	186,940	164,890	126,851
Stock option compensation expense	573,174	1,299,085	2,237,182
Loss on sale of fixed assets	123,177		
Changes in operating assets/liabilities:			
Accrued interest on marketable securities	68	(39,260)	(32,699)
Accounts receivable			160,088
Other current assets	135,306	92,076	117,859
Accounts payable and accrued expenses	462,770	61,638	(339,679)
Changes in other assets and other liabilities	15,898	(28,644)	(42,766)
Net cash used in operating activities	(6,944,021)	(13,046,081)	(10,742,327)
Cash flows from investing activities:			
Purchase of marketable securities		(3,186,104)	(17,059,966)
Proceeds from maturities of marketable securities	2,713,659	13,757,359	11,665,800
Purchase of fixed assets	(1,491)	(123,701)	(550,222)
Proceeds from sales of fixed assets	117,485		
Net cash provided by (used in) investing activities	2,829,653	10,447,554	(5,944,388)
Cash flows from financing activities:			
Proceeds from issuance of common stock in January 2007 registered direct offering, net			5,080,301
Proceeds from issuance of common stock in August 2007 registered direct offering, net			13,135,411
Proceeds from issuance of 0% Series E Convertible Preferred Stock in April 2009 registered direct offering, net	1,244,688		
Proceeds from issuance of Series F Convertible Preferred Stock in July 2009 private placement, net	1,695,177		
Capitalized financing costs for private placement of convertible promissory note payable in January 2010	(29,917)		
Proceeds from issuance of common stock upon exercise of warrants			613,220
Proceeds from issuance of common stock upon exercise of stock options		8,532	229,250
Net cash provided by financing activities	2,909,948	8,532	19,058,182
(Decrease) increase in cash and cash equivalents	(1,204,420)	(2,589,995)	2,371,467
Cash and cash equivalents, beginning of period	1,430,886	4,020,881	1,649,414
Cash and cash equivalents, end of period	$ 226,466	$ 1,430,886	$ 4,020,881
Supplemental disclosure of non-cash financing activities:			
Accretion of fair value of beneficial conversion feature on 0% Series E Convertible Preferred Stock	$ 831,704	$	$

Accretion of fair value of beneficial conversion feature on Series F Convertible Preferred Stock	$ 1,515,117	$	$

See accompanying notes.

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Cortex Pharmaceuticals, Inc.

NOTES TO FINANCIAL STATEMENTS

Note 1 Business and Summary of Significant Accounting Policies

Business Cortex Pharmaceuticals, Inc. (the Company) was formed to engage in the discovery, development and commercialization of innovative pharmaceuticals for the treatment of neurological and psychiatric disorders. Since its formation in 1987, the Company has been engaged in research and early clinical development activities.

In January 1999, the Company entered into a research collaboration and exclusive worldwide license agreement with NV Organon (Organon) that will enable Organon to develop and commercialize the Company s AMPAKINE® technology for the treatment of schizophrenia and depression (Note 5).

In October 2000, the Company entered into a research collaboration agreement and an exclusive license agreement with Les Laboratoires Servier (Servier) (Note 4). The agreements, as amended to date, will enable Servier to develop and commercialize select AMPAKINE compounds for the treatment of (i) declines in cognitive performance associated with aging, (ii) neurodegenerative diseases, such as Alzheimer s disease, and (iii) anxiety disorders. In early December 2006, the Company terminated the research collaboration with Servier. The license agreement with Servier, as amended to date, continues in full force and effect in accordance with its terms.

In March 2010, the Company entered into an asset purchase agreement with Biovail Laboratories International SRL (Biovail) pursuant to which Biovail acquired the Company s rights to certain AMPAKINE compounds and related intellectual property, including CX717, for use in the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. As part of the transaction, Biovail licensed back to the Company exclusive and irrevocable rights to certain of the acquired AMPAKINE compounds for use outside of the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease (Note 10).

From inception through December 31, 2009, the Company has generated only modest operating revenues, the majority of which it derived from its agreements with Servier and Organon, as further described in Notes 4 and 5, respectively. There were no revenues for the years ended December 31, 2009, 2008 and 2007.

Going Concern The Company will require substantial additional funds to advance its research and development programs and to continue its operations, particularly if it decides to independently conduct later-stage clinical testing and apply for regulatory approval of any of its proposed products, and if it independently undertakes marketing and promotion of its products. Additionally, the Company may require additional funds in the event that it decides to pursue strategic acquisitions or licenses for other products or businesses. Based on its current operating plan, including planned clinical trials and other product research and development costs, the Company estimates that its existing cash resources, along with $1,500,000 of proceeds from its private placement of a convertible promissory note in January 2010 and the proceeds of $10,000,000 from the transaction to sell selected AMPAKINE compounds and rights to respiratory depression to Biovail in March 2010, will be sufficient to meet its requirements into the second quarter of 2011 and allow the Company to continue as a going concern. The Company believes that it will require additional capital to fund on-going operations beyond that time.

Cash Equivalents The Company considers all highly liquid short-term investments with maturities of less than three months when acquired to be cash equivalents.

Marketable Securities Marketable securities are carried at fair value, with unrealized gains and losses, net of any tax, reported as a separate component of stockholders equity. The Company utilizes observable inputs based on quoted prices in active markets for identical assets to record the fair value of its marketable securities. Authoritative guidance that establishes a framework for fair value for generally accepted accounting principles in the United States deems observable inputs for identical assets as Level 1 inputs, the most reliable in the hierarchy of inputs for determining fair value measurements.

The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization is included in interest income. Realized gains and losses and declines in value judged to be other-than-temporary on short-term investments are included in interest income. The cost of securities sold is based on the specific identification method. Interest and dividends on securities classified as available-for-sale are included in interest income.

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Concentrations of Credit Risk Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash, cash equivalents and short-term investments. The Company limits its exposure to credit loss by investing its cash with high credit quality financial institutions.

Furniture, Equipment and Leasehold Improvements Furniture, equipment and leasehold improvements are recorded at cost and depreciated on a straight-line basis over the lesser of their estimated useful lives, ranging from five to ten years, or the life of the lease, as appropriate.

Long-Lived Assets The Company reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the total amount of an asset may not be recoverable. An impairment loss is recognized when estimated future cash flows expected to result from the use of the asset and the eventual disposition are less than the asset s carrying amount. The Company did not recognize any significant impairment losses during any of the periods presented.

Revenue Recognition The Company recognizes revenue when all four of the following criteria are met: (i) persuasive evidence that an arrangement exists; (ii) delivery of the products and/or services has occurred; (iii) the fees earned can be readily determined; and (iv) collectibility of the fees is reasonably assured.

Revenues from milestone payments are recognized when earned, as evidenced by written acknowledgement from the collaborator, provided that (i) the milestone event is substantive and its achievement was not reasonably assured at the inception of the agreement, and (ii) the Company s performance obligations, if any, after the milestone achievement will continue to be funded by the collaborator at a comparable level to that before the milestone was achieved. If both of these criteria are not met, the milestone payment would be recognized over the remaining minimum period of the Company s performance obligations under the arrangement.

If a collaborator develops and markets a product that utilizes the Company s technology, the Company will be eligible to receive royalties based on net sales of the product, as defined by the relative agreement. The Company will recognize such royalties, if any, at the time that the royalties become payable to the Company from the collaborator.

For arrangements that may involve the delivery or performance of multiple products, services and/or rights to use assets, we recognize revenue from milestone payments over the remaining minimum period of performance obligations under such multiple element arrangements.

Amounts received for upfront technology license fees under multiple-element arrangements are deferred and recognized on a straight-line basis over the period of committed services or performance, which approximates the level of efforts provided, if such arrangements require the Company s on-going services or performance.

Employee Stock Options and Stock-Based Compensation All share-based payments to employees, including grants of employee stock options, are recognized in the financial statements based on their fair values. For options granted during the years ended December 31, 2009, 2008 and 2007, the fair value of each option award was estimated using the Black-Scholes option pricing model and the following assumptions:

	Year ended December 31,		
	2009	**2008**	**2007**
Weighted average risk-free interest rate	2.8%	3.0%	3.9%
Dividend yield	0%	0%	0%
Volatility factor of the expected market price of the Company s common stock	101%	97%	95%
Weighted average life	6.9 years	6.7 years	5.7 years

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Expected volatility is based on the historical volatility of the Company s stock. The Company also uses historical data to estimate the expected term of options granted and employee termination rates. The risk-free rate for periods within the expected useful life of the options is based on the U.S. Treasury yield curve in effect at the time of grant.

The estimated weighted average fair value of options granted during the years ended December 31, 2009, 2008 and 2007 was $0.17, $0.52 and $0.71, respectively.

As of December 31, 2009, there was approximately $558,000 of total unrecognized compensation cost related to non-vested share-based employee compensation arrangements. That non-cash cost is expected to be recognized over a weighted-average period of 1.3 years.

Stock options and warrants issued to non-employees as compensation for services to be provided to the Company are accounted for based upon the fair value of the services provided or the estimated fair value of the option or warrant, whichever can be more clearly determined. The Company recognizes this expense over the period in which the services are provided. The Company s net loss for the years ended December 31, 2009, 2008 and 2007 includes expenses of approximately $3,000, $50,000 and $77,000, respectively, for non-cash stock-based compensation for options issued to consultants and other non-employees.

The Company issues new shares to satisfy stock option and warrant exercises. There were no options exercised during the year ended December 31, 2009. During the years ended December 31, 2008 and 2007, the total intrinsic value of options exercised was approximately $7,000 and $105,000, respectively. The effect of potentially issuable shares of common stock was not included in the calculation of diluted loss per share given that the effect would be anti-dilutive.

Research and Development Costs All costs related to research and development activities are treated as expenses in the period incurred.

Comprehensive Loss All components of comprehensive loss, including net loss, are reported in the financial statements in the period in which they are recognized. Comprehensive loss is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources. Net loss and other comprehensive loss, including unrealized gains and losses on investments, are reported net of any related tax effect to arrive at comprehensive loss.

Net Loss Per Share Net loss per share is computed based on the weighted average number of common shares outstanding.

As of December 31, 2009, the Company has reserved approximately 33.7 million shares of common stock for issuance upon exercise of outstanding stock options and stock purchase warrants, as well as for conversion of the Company s Series B preferred stock, as further described in Note 3. The effect of the potentially issuable shares of common stock was not included in the calculation of diluted loss per share given that the effect would be anti-dilutive.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual amounts may differ from those estimates.

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Note 2 Detail of Selected Balance Sheet Accounts

The Company did not hold any marketable securities as of December 31, 2009. The following is a summary of marketable securities as of December 31, 2008:

	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Corporate obligations	$ 1,202,511	$ 1,195	$ (3,960)	$ 1,199,746
Mortgage backed government securities	748,046	1,994	(157)	749,883
Other asset backed securities	514,357		(2,967)	511,390
Commercial paper	249,404	11		249,415
Total marketable securities	$ 2,714,318	$ 3,200	$ (7,084)	$ 2,710,434

The amortized cost and estimated fair value of available-for-sale marketable securities as of December 31, 2008, by contractual maturity, are as follows:

	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Maturities				
Within one year	$ 2,199,961	$ 3,200	$ (4,117)	$ 2,199,044
After one year through five years	514,357		(2,967)	511,390
Total marketable securities	$ 2,714,318	$ 3,200	$ (7,084)	$ 2,710,434

Gross realized gains and losses on sales of marketable securities were not significant in the years ended December 31, 2009, 2008 and 2007. The Company manages risk on its investment portfolio by matching scheduled investment maturities with its cash requirements.

Furniture, equipment and leasehold improvements consist of the following:

	December 31,	
	2009	2008
Laboratory equipment	$ 1,733,461	$ 2,247,215
Leasehold improvements	773,871	773,871
Furniture and equipment	183,549	183,549
Computers and software	332,557	418,858
	3,023,438	3,623,493
Accumulated depreciation	(2,640,091)	(2,814,035)
	$ 383,347	$ 809,458

Note 3 Stockholders Equity

Preferred Stock

The Company has authorized a total of 5,000,000 shares of preferred stock, par value $0.001 per share, of which, as of December 31, 2009, 1,250,000 shares have been designated as 9% Cumulative Convertible Preferred Stock (non-voting, 9% Preferred); 3,200,000 shares have been designated as Series B Convertible Preferred Stock (non-voting, Series B Preferred); 500 shares have been designated as Series D Convertible Preferred Stock (non-voting, Series D Preferred); 35,000 have been designated as Series A Junior Participating Preferred Stock (non-voting, Series A Junior Participating) and 514,500 shares were undesignated and may be issued with such rights and powers as the Board of Directors may designate. No shares of the 9% Preferred or Series D Preferred were outstanding during the years ended December 31, 2008 and 2009.

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Series B Preferred outstanding as of December 31, 2009 and 2008 consisted of 37,500 shares issued in a May 1991 private placement. Each share of Series B Preferred is convertible into approximately 0.09812 shares of common stock at an effective conversion price of $6.795 per share of common stock, subject to adjustment under certain circumstances. As of December 31, 2009, the remaining shares of Series B Preferred outstanding are convertible into 3,679 shares of common stock. The Company may redeem the Series B Preferred at a price of $0.6667 per share, an amount equal to its liquidation preference, at any time upon 30 days prior notice.

In April 2009, the Company completed a registered direct offering of 1,475 shares of its newly designated 0% Series E Convertible Preferred Stock with a stated value of $1,000 per share (the Series E Preferred) and warrants to purchase an aggregate of 6,941,176 shares of its common stock to a single institutional investor in exchange for gross proceeds of $1,475,000. Net proceeds from the offering were approximately $1,250,000. The warrants have an exercise price of $0.2721 per share (reduced from $0.3401 per share in February 2010) and are exercisable on or before October 17, 2012.

The Company evaluated the exercise and conversion features for the Series E Preferred and the related warrants issued in the transaction and deemed both securities to be equity instruments indexed to the Company s common stock.

In recording the proceeds from this offering, the Company estimated the fair value of the warrants issued to the investor using the Black-Scholes option pricing model. The value of the Series E Preferred was estimated based upon the fair value of the underlying common stock issuable upon conversion. The Company then used the relative fair value method to allocate the proceeds to the investor warrants and the Series E Preferred.

The Company calculated an effective conversion price for the Series E Preferred based upon the allocated proceeds and then measured the intrinsic value of the beneficial conversion right embedded within such Preferred Stock. The beneficial conversion right is based on the difference between the fair value of the Company s common stock and the effective conversion price of the Series E Preferred on the closing date of the offering.

Given that the Series E Preferred was immediately convertible, the value of the beneficial conversion right was fully amortized at the date of issuance of such Preferred Stock through a charge to the Company s accumulated deficit. That charge is reflected in the accompanying statement of operations as an increase in the net loss for purposes of determining the net loss applicable to common stock for the year ended December 31, 2009.

The Series E Preferred was subsequently fully converted into 8,676,471 shares of the Company s common stock at a conversion price of $0.17 per share. Upon the conversion, shares of the Series E Preferred resumed the status of authorized but unissued shares of preferred stock and are no longer designated as Series E Preferred.

In July 2009, the Company completed a private placement of 4,029 shares of its newly designated Series F Convertible Preferred Stock with a stated value of $1,000 per share (the Series F Preferred) and warrants to purchase an aggregate of 6,060,470 shares of its common stock to a single institutional investor in exchange for gross proceeds of $4,029,000, of which $2,029,000 was placed in an escrow account. For conversions of the Series F Preferred prior to July 29, 2014, the Company agreed to pay the holder an amount from the escrow account equal to approximately $504 per $1,000 of stated value of the Series F Preferred converted. The warrants issued to the investor have an exercise price of $0.2699 per share and are exercisable on or before January 31, 2013.

The proceeds placed in the escrow account were recorded as a liability until such amounts were released to the investor in connection with conversions of the Series F Preferred. The Company evaluated the exercise and conversion features for the Series F Preferred and the related warrants issued in the transaction and deemed both securities to be equity instruments indexed to the Company s common stock.

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In recording the proceeds from this offering, the Company estimated the fair value of the warrants issued to the investor using the Black-Scholes option pricing model. The value of the Series F Preferred was estimated based upon the fair value of the underlying common stock issuable upon conversion. The Company then used the relative fair value method to allocate the proceeds to the investor warrants and the Series F Preferred.

The Company calculated an effective conversion price for the Series F Preferred based upon the allocated proceeds and then measured the intrinsic value of the beneficial conversion right embedded within such Preferred Stock. The beneficial conversion right is based on the difference between the fair value of the Company s common stock and the effective conversion price of the Series F Preferred on the closing date of the offering.

Given that the Series F Preferred was convertible upon effectiveness of the registration statement for the underlying shares of the Company s common stock, which occurred during August 2009, the value of the beneficial conversion right has been fully amortized as of December 31, 2009 through a charge to the Company s accumulated deficit. That charge is reflected in the accompanying statement of operations as an increase in the net loss for purposes of determining the net loss applicable to common stock for the year ended December 31, 2009.

As of December 31, 2009, the Series F Preferred has fully converted into 12,120,938 shares of the Company s common stock at a conversion price of $0.3324 per share and the $2,029,000 held in the escrow account has been released to the investor. Upon the conversion, shares of the Series F Preferred resumed the status of authorized but unissued shares of preferred stock and are no longer designated as Series F Preferred.

Common Stock and Common Stock Purchase Warrants

On January 22, 2007, the Company completed a registered direct offering with several institutional investors for shares of its common stock and warrants to purchase common stock for an aggregate purchase price of approximately $5,624,000. Net proceeds from the offering were approximately $5,080,000. Under the terms of the transaction, the Company sold an aggregate of 5,021,427 shares of its common stock and warrants to purchase 3,263,927 shares of its common stock. The warrants have an exercise price of $1.66 per share and are exercisable on or before January 21, 2012. The warrants are subject to a call provision in favor of the Company to the extent that the closing price of the Company s common stock exceeds $3.35 for any 13 consecutive trading-day period. During the year ended December 31, 2007, the Company received approximately $443,000 from the exercise of related warrants. No other related warrants were exercised during the years ended December 31, 2008 and 2009. If the remaining 2,996,927 warrants are fully exercised, of which there can be no assurance, these warrants would provide approximately $4,975,000 of additional capital.

On August 29, 2007, the Company completed a registered direct offering with several institutional investors for shares of its common stock and warrants to purchase common stock for an aggregate purchase price of $14,150,000. Net proceeds from the offering were approximately $13,135,000. Under the terms of the transaction, the Company sold an aggregate of 7,075,000 shares of its common stock and warrants to purchase 2,830,000 shares of its common stock to the investors. The investors warrants have an exercise price of $2.64 per share and are exercisable on or before August 28, 2012. In addition, the Company issued warrants to purchase up to an aggregate of 176,875 shares of its common stock to the placement agents in the offering. The placement agents warrants have an exercise price of $3.96 per share and are exercisable on or before August 28, 2012. No related warrants were exercised during the years ended December 31, 2008 and 2009. If the investor and placement agents warrants are fully exercised, of which there can be no assurance, these warrants would provide approximately $8,172,000 of additional capital.

In connection with the registered direct offering of the Company s 0% Series E Convertible Preferred Stock in April 2009, as described more fully above, the Company issued warrants to purchase an aggregate of 6,941,176 shares of its common stock to a single institutional investor. The warrants were issued with an exercise price of $0.3401 per share and are exercisable on or before October 17, 2012. In February 2010, the exercise price of these warrants was reduced to $0.2721 in exchange for the investor s consent and waiver with respect to the Company s completed financing transaction with Samyang Optics Co., Ltd. in January 2010, as explained more fully in Note 10. The warrants also are subject to a call provision in favor of the Company to the extent that the volume weighted average price of the Company s common stock exceeds $0.6802 for any 20 consecutive trading days. If the warrants are fully exercised, of which there can be no assurance, these warrants would provide approximately $1,889,000 of additional capital. The Company also issued warrants to purchase up to an additional aggregate of 433,824 shares of the Company s common stock to the placement agent for the transaction. These warrants have an exercise price of $0.26 per share and are subject to the same term of exercisability as the warrants issued to the investor. The warrants issued to the placement agent are subject to a call provision in favor of the Company to the extent that the volume weighted average price of the Company s common stock exceeds $0.52 for any 20 consecutive trading days. If the warrants are fully exercised, of which there can be no assurance, these warrants would provide approximately $113,000 of additional capital. No related warrants were exercised during the year ended December 31, 2009.

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In connection with the private placement of the Company s Series F Convertible Preferred Stock in July 2009, as described more fully above, the Company issued warrants to purchase an aggregate of 6,060,470 shares of its common stock to a single institutional investor. The warrants have an exercise price of $0.2699 per share and are exercisable on or before January 31, 2013. If the warrants are fully exercised, of which there can be no assurance, these warrants would provide approximately $1,636,000 of additional capital. The Company also issued warrants to purchase up to an additional aggregate of 606,047 shares of the Company s common stock to the placement agent for the transaction. These warrants have an exercise price of $0.3656 per share and are subject to the same term of exercisability as the warrants issued to the investor. The warrants issued to the investor and the placement agent are subject to a call provision in favor of the Company to the extent that the volume weighted average price of the Company s common stock exceeds $0.5398 for any 20 consecutive trading days. If the warrants issued to the placement agent are fully exercised, of which there can be no assurance, these warrants would provide approximately $222,000 of additional capital.

In connection with the engagement of a consultant for investor relations purposes, from February 2003 through December 2004, the Company issued five-year warrants to purchase up to an aggregate of 188,000 shares of its common stock at a weighted-average exercise price of $1.59 per share. During the year ended December 31, 2005, the Company issued warrants to purchase another 8,000 shares of its common stock at a weighted-average exercise price of $2.77 per share. The applicable exercise prices for these warrants were derived from the market value of the Company s common stock on the date of issuance and the warrants were fully exercisable when issued. During the year ended December 31, 2008, in exchange for ongoing services, the exercisability of previously issued warrants to purchase 42,000 shares of common stock was extended to early September 2010. In connection with the term extensions, during the year ended December 31, 2008 the Company recorded non-cash stock compensation charges of approximately $7,000. As of December 31, 2009, warrants to purchase a total of 50,000 shares of the Company s common stock remained outstanding at a weighted average exercise price of $2.83 per share. The expiration dates for the outstanding warrants, as amended, range from early January 2010 to early September 2010. No related warrants were exercised during the years ended December 31, 2008 and 2009.

In connection with business development activities, in July 2005 the Company issued a five-year warrant to purchase 100,000 shares of its common stock at an exercise price of $2.75 per share. The warrant is subject to certain conditions in order to become exercisable, which conditions remain unmet as of December 31, 2009.

As of December 31, 2009, the Company had reserved an aggregate of 3,679 shares for issuance upon conversion of the Series B Preferred; 20,195,319 shares for issuance upon exercise of warrants; 13,538,498 shares for issuance upon exercise of outstanding stock options; and 411,969 shares for issuance upon exercise of stock options available for future grant.

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Warrant transactions by the Company for the years ended December 31, 2007, 2008 and 2009 are summarized below:

	Number of underlying shares	Weighted average exercise price per share
Outstanding as of December 31, 2006	8,311,409	$ 3.02
Issued	6,270,802	2.17
Exercised	(333,667)	1.84
Expired	(437,248)	3.46
Outstanding as of December 31, 2007	13,811,296	$ 2.65
Issued		
Exercised		
Expired	(1,890,668)	2.50
Outstanding as of December 31, 2008	11,920,628	$ 2.67
Issued	14,041,517	0.31
Exercised		
Expired	(5,766,826)	3.25
Outstanding as of December 31, 2009	20,195,319	$ 0.89

Information regarding warrants outstanding at December 31, 2009 is as follows:

Range of exercise prices	Number outstanding and exercisable at December 31, 2009	Weighted average remaining contractual life	Weighted average exercise price
$0.26 - $0.37	14,041,517	2.9 years	$ 0.31
$1.65 - $2.41	3,014,927	2.0 years	1.66
$2.64 - $4.29	3,138,875	2.6 years	2.72
	20,195,319		

Stock Option and Stock Purchase Plan

The Company s 1996 Stock Incentive Plan (the 1996 Plan), which terminated pursuant to its terms on October 25, 2006, provided for the granting of options and rights to purchase up to an aggregate of 10,213,474 shares of the Company s authorized but unissued common stock to qualified employees, officers, directors, consultants and other service providers. Options previously granted under the 1996 Plan generally vest over a three-year period, although some options granted to officers included more accelerated vesting. Options previously granted under the 1996 Plan generally expire ten years from the date of grant, but some options granted to consultants expire five years from the date of grant.

On March 30, 2006, the Company s Board of Directors approved the 2006 Stock Incentive Plan (the 2006 Plan), which subsequently was approved by the Company s stockholders on May 10, 2006. Since the approval of the 2006 Plan, no further options have been or will be granted under the 1996 Plan. The 2006 Plan provides for the granting of options and rights to purchase up to an aggregate of 7,363,799 shares of the Company s authorized but unissued common stock (subject to adjustment under certain circumstances, such as stock splits, recapitalizations and reorganization) to qualified employees, officers, directors, consultants and other service providers.

Under the 2006 Plan, the Company may issue a variety of equity vehicles to provide flexibility in implementing equity awards, including incentive stock options, nonqualified stock options, restricted stock grants, stock appreciation rights, stock payment awards, restricted stock units

and dividend equivalents. The exercise price of stock options offered under the 2006 Plan must be at least 100% of the fair market value of the common stock on the date of grant. If the person to whom an incentive stock option is granted is a 10% stockholder of the Company on the date of grant, the exercise price per share shall not be less than 110% of the fair market value on the date of grant. Vesting and expiration provisions for options granted under the 2006 Plan are similar to those under the 1996 Plan.

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Subject to any restrictions under federal or securities laws, the Chief Executive Officer may award stock options to new non executive-officer employees and consultants, with a market value at the time of hire equivalent to up to 100% of the employee s annual salary or the consultant s anticipated annual consulting fees. The Chief Executive Officer shall have the discretion to increase or decrease such awards based on market and recruiting factors subject to a limit per person in each case of options to purchase 50,000 shares. Additionally, on an annual basis, the Chief Executive Officer may grant continuing employees and consultants, based upon performance and objectives, a stock option for that number of shares up to 40% of the employee s annual salary or the consultant s annual fees, but not to exceed 50,000 shares per person per year. Any option grant exceeding 50,000 shares per person per year requires approval by the Compensation Committee of the Board of Directors. These options shall be granted with an exercise price equal to the fair market value of the Company s common stock on the date of issuance, have a ten-year term, vest annually over a three-year period from the dates of grant and have other terms consistent with the 2006 Plan.

Each non-employee director (other than those who serve on the Board of Directors to oversee an investment in the Company) is automatically granted options to purchase 30,000 shares of common stock upon commencement of service as a director and, each non-employee director is automatically granted additional options to purchase 30,000 shares of common stock on the date of the first meeting of the Board of Directors for the relative calendar year. During 2009, the automatic annual grants to the non-employee directors were not issued until the stockholders approved an increase in the authorized shares available under the 2006 Plan at the Annual Meeting of Stockholders in June 2009. Options to purchase an additional 30,000 shares of common stock were granted to the non-employee directors in August 2009. Stock option issuances to non-employee directors who serve on the Board of Directors to oversee an investment in the Company are determined separately. No non-employee directors currently serve in that capacity. The nonqualified options to non-employee directors have an exercise price equal to 100% of the fair market value of the common stock on the date of grant, have a ten-year term and vest annually over a three-year period from the dates of grant.

As of December 31, 2009, options to purchase an aggregate of 8,984,592 shares of common stock were exercisable under the Company s stock option plans. During the years ended December 31, 2009, 2008 and 2007, the Company did not issue options to purchase shares of common stock with exercise prices below the fair market value of the common stock on the dates of grant.

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Stock option transactions under the Company s stock option plans for the years ended December 31, 2007, 2008 and 2009 are summarized below:

	Shares	Weighted Average Per Share Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Balance, December 31, 2006	9,767,156	$ 2.04		
Granted	1,237,130	0.97		
Exercised	(159,311)	1.44		
Expired	(484,814)	1.99		
Forfeited	(218,665)	2.03		
Balance, December 31, 2007	10,141,496	$ 1.92		
Granted	1,817,000	0.64		
Exercised	(22,750)	0.38		
Expired	(236,428)	2.05		
Forfeited	(144,999)	1.23		
Balance, December 31, 2008	11,554,319	$ 1.73		
Granted	3,160,000	0.21		
Exercised				
Expired	(890,744)	1.35		
Forfeited	(285,077)	1.09		
Balance, December 31, 2009	13,538,498	$ 1.41	6.3 years	$ 0
Exercisable, December 31, 2009	8,984,592	$ 1.95	4.9 years	$ 0

As of December 31, 2009, options available for future grant under the 2006 Stock Incentive Plan amounted to 411,969.

Information regarding stock options outstanding at December 31, 2009 is as follows:

	Options Outstanding			Options Exercisable	
Range of exercise prices	Number outstanding at December 31, 2009	Weighted average remaining contractual life	Weighted average exercise price	Number exercisable at December 31, 2009	Weighted average exercise price
$0.20 - $0.29	3,160,000	9.6 years	$ 0.21	1,000	$ 0.29
0.30 - 0.66	1,887,630	8.0 years	0.59	880,220	0.61
0.71 - 1.06	1,725,899	3.9 years	0.82	1,472,566	0.80
1.07 - 1.56	1,472,229	6.9 years	1.26	1,373,899	1.27
1.57 - 2.35	1,489,624	4.7 years	2.24	1,453,791	2.26
2.38 - 3.38	3,773,167	4.3 years	2.81	3,773,167	2.81
3.39 - 4.44	29,949	2.3 years	4.34	29,949	4.34
	13,538,498	6.3 years	1.41	8,984,592	1.95

Stockholder Rights Plan

On February 5, 2002, the Company s Board of Directors approved the adoption of a Stockholder Rights Plan to protect stockholder interests against takeover strategies that may not provide maximum stockholder value. A dividend of one Right (each, a Right and, collectively, the Rights) for each outstanding share of the Company s common stock was distributed to stockholders of record on February 15, 2002. Each share of common stock presently outstanding and issued since February 15, 2002 also includes one Right. Each share of common stock that may be issued after the date hereof but prior to the Distribution Date (as defined below) will also include one Right. The Rights automatically attach to outstanding shares of common stock detailed above and no separate certificates are issued. The Rights trade only together with the Company s common stock.

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Each Right allows its holder to purchase one one-thousandth of a share (a Unit) of Series A Junior Participating Preferred Stock at a purchase price of $75.00 per Unit. The Rights are not currently exercisable, but will become exercisable on the 10th business day following the occurrence of certain events relating to a person or group (Acquiring Person) acquiring or attempting to acquire fifteen percent (15%) or more of the outstanding shares of the Company s common stock (the Distribution Date). If the Rights become exercisable, then any Rights held by the Acquiring Person are void. In such event, each other holder of a Right that has not been exercised will have the right upon exercise to purchase shares of the Company s common stock (or common stock of the Acquiring Person in certain situations) having a value equal to two times the exercise price of the Right. Unless redeemed or exchanged earlier by the Company, the Rights expire on February 15, 2012.

The Company has 35,000 shares of Series A Junior Participating Preferred Stock authorized (35,000,000 Units), of which no shares or Units are issued or outstanding at December 31, 2009. Each Unit would entitle the holder to (A) one vote, voting together with the shares of common stock; (B) in the event that the Company s assets are liquidated, a payment of $1.00 or an amount equal to the payment to be distributed per share of common stock, whichever is greater; and (C) in the event of any merger, consolidation or other transaction in which shares of common stock are exchanged, a payment in the amount equal to the payment received per share of common stock. The number of Rights per share of common stock, and the purchase price, are subject to adjustment in the event of each and any stock split, stock dividend or similar event.

Note 4 Research and License Agreement with Les Laboratoires Servier

In October 2000, the Company entered into a research collaboration agreement and an exclusive license agreement with Les Laboratoires Servier. The agreements will allow Servier to develop and commercialize select AMPAKINE compounds for the treatment of (i) declines in cognitive performance associated with aging, (ii) neurodegenerative diseases and (iii) anxiety disorders. The indications covered include, but are not limited to, Alzheimer s disease, mild cognitive impairment, sexual dysfunction, and the dementia associated with multiple sclerosis and Amyotrophic Lateral Sclerosis. In early December 2006, the Company terminated the research collaboration with Servier. However, the exclusive license agreement with Servier, as amended to date, will continue in full force and effect in accordance with its terms for the three compounds selected by Servier at termination. The Company remains eligible for milestone payments based upon clinical development of the licensed compounds by Servier, and ultimately, royalties on worldwide product sales, if any. The territory covered by the exclusive license excludes North America, allowing the Company to retain commercialization rights in its domestic market. The territory covered by the exclusive license agreement also excludes South America (except Argentina, Brazil and Venezuela), Australia and New Zealand. The Company, as a result of the termination, recovered worldwide marketing rights for all of the indications originally licensed to Servier, other than three compounds retained by Servier for commercialization.

In connection with the agreements, Servier paid the Company a nonrefundable, up-front payment of $5,000,000. The upfront payment was amortized as revenue over the research support period, as extended by the amendments entered into in October 2002 and December 2003. The October 2000 agreements included research support through early December 2006, subject to the Company providing agreed-upon levels of research. The amount of support was subject to annual adjustment based upon the increase in the U.S. Department of Labor s Consumer Price Index. During the year ended December 31, 2006, the Company recorded research support from Servier of approximately $1,025,000. The agreements also include milestone payments based upon clinical development and royalty payments on sales in licensed territories.

In October 2002, Servier agreed to provide the Company with $4,000,000 of additional research support, in exchange for rights to the Company s AMPAKINE compounds for the potential treatment of anxiety disorders, in Servier s licensed territories. The $4,000,000 was received in quarterly installments of $500,000 over a two-year period, with the final payment received during the quarter ended September 30, 2004.

Note 5 Research and License Agreement with NV Organon

In January 1999, the Company entered into a research collaboration and exclusive worldwide license agreement with NV Organon. The agreement will enable Organon to develop and commercialize the Company s proprietary AMPAKINE technology for the treatment of schizophrenia and depression.

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In connection with the Organon agreement, the Company received an up-front payment of $2,000,000. The agreement also included support of approximately $3,000,000 per year for the period from January 1999 through January 2001, during which time the Company provided research services to Organon.

During the fiscal year ended June 30, 2000, the Company received its first milestone under the agreement, triggered when Organon selected an AMPAKINE compound to pursue in Phase I clinical testing as a potential treatment for schizophrenia. During the fiscal year ended June 30, 2002, Organon notified the Company of its intent to continue developing the selected compound by entering Phase II clinical testing, triggering a second milestone payment of $2,000,000, which the Company received in September 2001. During the fiscal year ended June 30, 2004, Organon paid the Company another $2,000,000 milestone in order to retain its rights to the Company s AMPAKINE technology in the field of depression. The Company remains eligible for additional milestone payments based upon further clinical development of the licensed technology by Organon, and ultimately, royalties on worldwide product sales, if any. Unless terminated earlier, the agreement continues until the expiration of all of Organon s royalty obligations, which continue until the expiration of patents covering the AMPAKINE technology or compounds licensed under the agreement.

In November 2007, Organon was acquired by Schering-Plough Corporation. Subsequently, in November 2009, Schering-Plough Corporation was acquired by Merck & Co. Inc.

Note 6 Advance from the Institute for the Study of Aging

In June 2000, the Company received $247,300 from the Institute for the Study of Aging (the Institute) to fund testing of the Company s AMPAKINE CX516 in patients with mild cognitive impairment (MCI). Patients with MCI represent the earliest clinically-defined group with memory impairment beyond that expected for normal individuals of the same age and education, but such patients do not meet the clinical criteria for Alzheimer s disease. The Institute is a non-profit foundation based in New York City and dedicated to the improvement in quality of life for the elderly.

Provided that the Company complies with the conditions of the funding agreement, repayment of the advance shall be forgiven unless the Company enters one of its AMPAKINE compounds into Phase III clinical trials for Alzheimer s disease. Upon such potential clinical trials, repayment would include the principal amount plus accrued interest computed at a rate equal to one-half of the prime lending rate. In lieu of cash, in the event of repayment the Institute may elect to receive the outstanding principal balance and any accrued interest thereon as shares of the Company s common stock. The conversion price for such form of repayment shall initially equal $4.50 per share, subject to adjustment under certain circumstances. Included in the balance sheet is accrued principal and interest of approximately $316,000 and $312,000 at December 31, 2009 and 2008, respectively.

Note 7 Commitments

The Company leases its offices and research laboratories under an operating lease that expires May 31, 2012. The related lease agreement includes scheduled rent increases that are recorded on a straight-line basis over the lease term. Subject to certain conditions, the lease provides the Company an option to extend the term of the lease for three one-year periods at the prevailing market rental rate at the time any extension is set to commence. Rent expense under this lease for the years ended December 31, 2009, 2008 and 2007 was approximately $536,000, $500,000 and $511,000, respectively. Commitments under the lease for the years ending December 31, 2010, 2011 and the five months ending May 31, 2012 are approximately $556,000, $581,000 and $248,000, respectively.

As of December 31, 2009, the Company has employment agreements with three of its executive officers that involve annual salary payments approximating $786,000 and provide for bonuses under certain circumstances. The agreements expire in May 2010, August 2010 and August 2011.

The Company has entered into severance agreements with each of its executive officers. In the event of a termination of employment, under certain circumstances, these severance agreements provide defined benefits to the executive officers, including compensation equal to 12 months of the executive officer s then current salary.

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In March 2009, each of the Company s executive officers agreed to a 20% reduction in their base salary in an effort to conserve the Company s financial resources. Following the proceeds from the transaction with Biovail in March 2010 (see Note 10), the Company believes it is reasonably possible that some of the reduced salary amounts will be restored to the executive officers, but at this time the amount of such restoration cannot be reasonably estimated and such determination is at the discretion of the Compensation Committee of the Board of Directors.

Additionally, in March 2009 the Company s executive officers and other key personnel entered into retention bonus agreements to foster the continuous employment of such individuals. Under such agreements, the employee will be entitled to receive a lump sum cash bonus equal to an additional six (6) months of the employee s base salary in the event of a change in control of the Company, subject to certain circumstances. Such payments would be based upon the employee s base salary prior to the voluntary adjustments made by each of the Company s executive officers, as explained more fully above.

Commitments for services to be rendered for preclinical and clinical studies amount to approximately $1,225,000. Separately, commitments under sponsored research agreements for services to be rendered approximated $47,000, all of which is payable within the next twelve months.

The Company has entered agreements with an academic institution that provide the Company exclusive rights to certain of the technologies that the Company is developing. Under the terms of the agreements, the Company is committed to royalty payments. These payments include minimum annual royalties of approximately $70,000 for the year ended December 31, 2009 and for each year thereafter for the remaining life of the patents covering the subject technologies. The date of the last to expire patent related to the subject technologies currently is April 2019. The agreements commit the Company to spend a minimum of $250,000 per year to advance the AMPAKINE compounds until the Company begins marketing an AMPAKINE compound. The agreements also commit the Company to pay up to an additional $875,000 upon achievement of certain clinical testing and regulatory approval milestones, and to remit a portion of certain remuneration received in connection with sublicensing agreements.

Note 8 Related Party Transactions

During the years ended December 31, 2009, 2008 and 2007, the Company paid or accrued scientific and other consulting fees to directors and/or stockholders aggregating approximately $91,000, $160,000 and $160,000, respectively. Under certain circumstances, the Company is obligated to make royalty payments to certain of its scientific consultants, some of whom are stockholders, upon successful commercialization of certain of its products by the Company or its licensees.

Note 9 Income Taxes

The Company uses the liability method of accounting for income taxes as set forth in ASC 740 (formerly Statement of Financial Accounting Standards No. 109, Accounting for Income Taxes (SFAS 109)). Under the liability method, deferred taxes are determined based on differences between the financial statement and tax bases of assets and liabilities using enacted tax rates. As of December 31, 2009, the Company had federal and California tax net operating loss carryforwards of approximately $85,677,000 and $73,231,000, respectively. The difference between the federal and California tax loss carryforwards is primarily attributable to the capitalization of research and development expenses for California franchise tax purposes. The federal and California net operating loss carryforwards will expire at various dates from 2010 through 2029. The Company also has federal and California research and development tax credit carryforwards totaling approximately $2,269,000 and $1,931,000, respectively. The federal research and development tax credit carryforwards will expire at various dates from 2010 through 2029. The California research and development tax credit carryforward does not expire and will carry forward indefinitely until utilized.

The Company s effective tax rate is different from the federal statutory rate of 35% due primarily to operating losses that receive no tax benefit as a result of a valuation allowance recorded for such losses.

Pursuant to Internal Revenue Code Sections 382 and 383, use of the Company s net operating loss and credit carryforwards may be limited if a cumulative change in ownership of more than 50% occurs within any three-year period since the last ownership change. The Company may have had a change in control under these Sections. However, the Company does not anticipate performing a complete analysis of the limitation on the annual use of the net operating loss and tax credit carryforwards until the time that it projects it will be able to utilize these tax attributes.

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Significant components of the Company s deferred tax assets as of December 31, 2009 and December 31, 2008 are shown below. A valuation allowance of $41,198,000 as of December 31, 2009 has been established against the Company s deferred tax assets as realization of such assets is uncertain. The increase in the valuation allowance of $1,976,000 from December 31, 2008 to December 31, 2009 relates primarily to continuing net operating losses.

Deferred tax assets consist of the following:

	December 31, 2009	December 31, 2008
Net operating loss carryforwards	$ 34,182,000	$ 32,519,000
Research and development credits	3,524,000	3,037,000
Capitalized research and development costs	1,082,000	1,286,000
Non-cash stock-based compensation	2,238,000	2,136,000
Depreciation		81,000
Other, net	172,000	163,000
Net deferred tax assets	41,198,000	39,222,000
Valuation allowance for deferred tax assets	(41,198,000)	(39,222,000)
Total deferred tax assets	$	$

In July 2006, the FASB issued guidance which clarified the accounting for uncertainty in income taxes recognized in an enterprise s financial statements (formerly FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes). This guidance prescribed a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The guidance also addressed derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. These provisions were effective for fiscal years beginning after December 15, 2006. The cumulative effect, if any, of applying these provisions is to be reported as an adjustment to the opening balance of retained earnings in the year of adoption. The impact of the Company s reassessment of its tax positions in accordance with this guidance did not have a material effect on the Company s results of operations, financial condition or liquidity. The provisions of this guidance have been incorporated into ASC 740-10.

As of December 31, 2009, the Company does not have any unrecognized tax benefits related to various federal and state income tax matters. The Company will recognize accrued interest and penalties related to unrecognized tax benefits in income tax expense.

The Company is subject to U.S. federal income tax as well as income tax of multiple state tax jurisdictions. The Company is currently open to audit under the statute of limitations by the Internal Revenue Service for the years ending December 31, 2006 through 2009. The Company and its subsidiaries state income tax returns are open to audit under the statute of limitations for the years ended December 31, 2005 through 2009. The Company does not anticipate any material amount of unrecognized tax benefits within the next 12 months.

Note 10 Subsequent Event

In January 2010, the Company completed a private placement of a convertible promissory note in the principal amount of $1,500,000 with a single accredited institutional investor, Samyang Optics Co., Ltd. (Samyang) of Korea. The promissory note accrues simple interest at the rate of 6% per annum and may be converted into unregistered shares of the Company s common stock at Samyang s election at any time after April 15, 2010 and on or before the January 15, 2011 maturity date (the maturity date).

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Prior to and no less than three months before the maturity date, Samyang has the option to elect repayment of the note in cash, which repayment would be made by the Company within three months after the maturity date. Additionally, the Company may elect to prepay any portion of the amount due under the note prior to the maturity date, however, any prepaid principal amount will include a prepayment fee equal to the difference between the interest accrued on such amount to the prepayment date and the interest that would have accrued to the maturity date if such amount had not been prepaid. Any amounts outstanding under the note that have not been converted or elected to be repaid shall automatically convert into unregistered shares of common stock after the close of business on the maturity date. The number of common shares issuable upon conversion of the promissory note shall be based upon the greater of: (i) $0.134 per share or (ii) an amount representing a 15% discount to the five-day volume weighted average closing price of the Company s common stock immediately prior to the conversion date of the promissory note.

In connection with any conversion of the promissory note, the Company is obligated to issue to Samyang two-year warrants to purchase additional unregistered shares of the Company s common stock representing 40% of the number of shares of common stock issued upon conversion of the principal under the promissory note. The warrant to purchase additional shares shall include an exercise price per share representing a 40% premium to the price per share at which the common stock is issued upon conversion of the promissory note.

Costs incurred during the year ended December 31, 2009 in connection with the private placement have been recorded as deferred offering costs in the accompanying Balance Sheet as of December 31, 2009.

On March 25, 2010, the Company entered into an asset purchase agreement with Biovail. Pursuant to the asset purchase agreement, Biovail acquired the Company s interests in CX717, CX1763, CX1942 and the injectable dosage form of CX1739, as well as certain of its other AMPAKINE compounds and related intellectual property for use in the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. In connection with the transaction, Biovail paid the Company the lump sum of $9,000,000 upon the execution of the asset purchase agreement and will pay it an additional $1,000,000 upon the later of the completion of the specified transfer plan or September 25, 2010. In addition, the Company will have the right to receive up to three milestone payments in an aggregate amount of up to $15,000,000 plus the reimbursement of certain related expenses, each conditioned upon the occurrence of particular events relating to the clinical development of certain assets that Biovail acquired. As part of the transaction, Biovail licensed back to the Company certain exclusive and irrevocable rights to some acquired AMPAKINE compounds, other than CX717, an injectable dosage form of CX1739, CX1763 and CX1942, for use outside of the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. Accordingly, following the transaction with Biovail, the Company retains its rights to develop and commercialize the non-acquired AMPAKINE compounds as a potential treatment for neurological diseases and psychiatric disorders. Additionally, the Company retains its rights to develop commercialize the AMPAKINE compounds as a potential treatment for sleep apnea disorders, including an oral dosage form of AMPAKINE CX1739.

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Cortex Pharmaceuticals, Inc.

CONDENSED BALANCE SHEETS

	(Unaudited) September 30, 2010	(Note) December 31, 2009
Assets		
Current assets:		
Cash and cash equivalents	$ 2,259,201	$ 226,466
Marketable securities	2,248,492	
Other current assets	54,933	19,578
Total current assets	4,562,626	246,044
Furniture, equipment and leasehold improvements, net	276,462	383,347
Capitalized offering costs		29,917
Other	41,373	46,667
	$ 4,880,461	$ 705,975
Liabilities and Stockholders Equity (Deficit)		
Current liabilities:		
Accounts payable	$ 809,991	$ 1,575,240
Accrued wages, salaries and related expenses	386,930	331,414
Advance for MCI project	318,756	315,742
Total current liabilities	1,515,677	2,222,396
Deferred rent	19,351	11,288
Total liabilities	1,535,028	2,233,684
Stockholders equity (deficit):		
Series B convertible preferred stock, $0.001 par value; $0.6667 per share liquidation preference; shares authorized: 37,500; shares issued and outstanding: 37,500; shares issuable upon conversion: 3,679	21,703	21,703
Common stock, $0.001 par value; shares authorized: 205,000,000; shares issued and outstanding: 78,858,197 (September 30, 2010) and 68,412,618 (December 31, 2009)	78,858	68,413
Additional paid-in capital	120,774,020	118,525,140
Unrealized gain, available for sale marketable securities	623	
Accumulated deficit	(117,529,771)	(120,142,965)
Total stockholders equity (deficit)	3,345,433	(1,527,709)
	$ 4,880,461	$ 705,975

See accompanying notes.

Note: The balance sheet as of December 31, 2009 has been derived from the audited financial statements at that date, but does not include all of the information and notes required by accounting principles generally accepted in the United States for complete financial statements.

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Cortex Pharmaceuticals, Inc.

CONDENSED STATEMENTS OF OPERATIONS

(Unaudited)

	Three months ended September 30,		Nine months ended September 30,	
	2010	2009	2010	2009
Revenues:				
Sale of AMPAKINE® assets	$ 1,000,000	$	$ 10,000,000	$
Grant revenues	192,607		192,607	
Total revenues	1,192,607		10,192,607	
Operating expenses (A):				
Research and development	776,701	846,088	3,346,988	4,009,359
General and administrative	946,720	882,554	3,677,408	2,851,140
Total operating expenses	1,723,421	1,728,642	7,024,396	6,860,499
Income (loss) from operations	(530,814)	(1,728,642)	3,168,211	(6,860,499)
Interest income (expense), net	2,609	983	(555,017)	18,158
Net income (loss)	$ (528,205)	$ (1,727,659)	$ 2,613,194	$ (6,842,341)
Accretion of beneficial conversion feature on 0% Series E Convertible Preferred Stock				(831,704)
Accretion of beneficial conversion feature on Series F Convertible Preferred Stock		(1,515,117)		(1,515,117)
Net income (loss) applicable to common stock	$ (528,205)	$ (3,242,776)	$ 2,613,194	$ (9,189,162)
Net income (loss) per share (Note 1):				
Basic and diluted	$ (0.01)	$ (0.06)	$ 0.04	$ (0.18)
Shares used in calculating per share amounts (Note 1):				
Basic	78,858,197	57,255,030	72,851,033	51,526,797
Diluted	78,858,197	57,255,030	78,291,865	51,526,797
(A) Operating expenses include the following non-cash stock compensation charges:				
Research and development	$ (5,271)	$ 83,559	$ 58,191	$ 221,987
General and administrative	61,567	115,796	207,988	233,558
	$ 56,296	$ 199,355	$ 266,179	$ 455,545

See accompanying notes.

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Cortex Pharmaceuticals, Inc.

CONDENSED STATEMENTS OF CASH FLOWS

(Unaudited)

	Nine months ended September 30,	
	2010	**2009**
Cash flows from operating activities:		
Net income (loss)	$ 2,613,194	$ (6,842,341)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation expense	85,844	146,342
Stock option compensation expense	266,179	455,545
Amortization of beneficial conversion feature	223,880	
Amortization of capitalized offering costs	57,698	
Warrant issued upon conversion of promissory note	233,767	
Changes in operating assets/liabilities:		
Accrued interest on marketable securities	14,517	68
Other current assets	(35,355)	99,838
Other non-current assets	5,294	
Accounts payable and accrued expenses	(709,733)	127,990
Accrued interest on convertible promissory note	35,500	
Deferred rent	8,063	6,450
Other	11,508	2,842
Net cash provided by (used in) operating activities	2,810,356	(6,003,266)
Cash flows from investing activities:		
Purchases of marketable securities	(2,622,386)	
Proceeds from sales and maturities of marketable securities	360,000	2,713,659
Purchases of fixed assets	(50,889)	(1,491)
Proceeds from sales of fixed assets	63,435	1,785
Net cash (used in) provided by investing activities	(2,249,840)	2,713,953
Cash flows from financing activities:		
Proceeds from issuance of convertible promissory note	1,500,000	
Costs related to issuance of convertible promissory note	(27,781)	
Proceeds from issued of preferred stock in July 2009 private placement, gross		2,000,000
Costs related to issuance of preferred stock in July 2009 private placement		(304,823)
Proceeds from issuance of preferred stock in April 2009 registered direct offering, gross		1,475,000
Costs related to issuance of preferred stock in April 2009 registered direct offering		(230,312)
Net cash provided by financing activities	1,472,219	2,939,865
Increase (decrease) in cash and cash equivalents	2,032,735	(349,448)
Cash and cash equivalents, beginning of period	226,466	1,430,886
Cash and cash equivalents, end of period	$ 2,259,201	$ 1,081,438
Supplemental disclosure of non-cash financing activities:		
Issuance of common stock upon conversion of promissory note	$ 1,535,500	$

Accretion of fair value of beneficial conversion feature on 0% Series E Convertible Preferred Stock	831,704
Accretion of fair value of beneficial conversion feature on Series F Convertible Preferred Stock	1,515,117

See accompanying notes.

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Cortex Pharmaceuticals, Inc.

NOTES TO CONDENSED FINANCIAL STATEMENTS

(Unaudited)

Note 1 Basis of Presentation and Significant Accounting Principles

The accompanying unaudited interim condensed financial statements have been prepared in accordance with accounting principles generally accepted in the United States for interim financial information and the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and notes required by accounting principles generally accepted in the United States for complete financial statements. In the opinion of management, all adjustments (consisting only of normal recurring accruals) considered necessary for a fair presentation have been included. Operating results for the nine-month period ended September 30, 2010 are not necessarily indicative of the results that may be expected for the full fiscal year. For further information, refer to the financial statements and notes thereto included in the Company s Annual Report on Form 10-K for the fiscal year ended December 31, 2009.

In January 1999, the Company entered into a research collaboration and exclusive worldwide license agreement with NV Organon (Organon) to enable Organon to develop and commercialize the Company s AMPAKINE® technology for the treatment of schizophrenia and depression. In November 2007, Organon was acquired by Schering-Plough Corporation (Schering-Plough). In November 2009, Schering-Plough was acquired by Merck Sharp & Dohme Corp (Merck). Following the merger with Schering-Plough, in September 2010, Merck notified the Company that it would not be proceeding further with the AMPAKINE technology.

As a result, rights to the use of AMPAKINE compounds for the treatment of schizophrenia and depression were returned to the Company. Merck no longer has license rights to use the Company s patents or know-how. Merck retains ownership of compounds developed by Organon or developed jointly by Organon and the Company during the collaboration. The Company is free to pursue strategic opportunities for all of its other AMPAKINE compounds in schizophrenia and depression.

In October 2000, the Company entered into a research collaboration agreement and an exclusive license agreement with Les Laboratoires Servier (Servier). The agreements, as amended to date, will enable Servier to develop and commercialize select AMPAKINE compounds for the treatment of (i) declines in cognitive performance associated with aging, (ii) neurodegenerative diseases, such as Alzheimer s disease, and (iii) anxiety disorders. In early December 2006, the Company terminated the research collaboration with Servier. The license agreement with Servier, as amended to date, continues in full force and effect in accordance with its terms. In November 2010, Servier selected a jointly discovered AMPAKINE compound to advance into Phase I clinical testing. Should the compound be successfully commercialized by Servier, the Company would receive payments based upon key clinical development milestones and royalty payments on sales in licensed territories.

In March 2010, the Company entered into an asset purchase agreement with Biovail pursuant to which Biovail acquired the Company s rights to certain AMPAKINE compounds and related intellectual property, including CX717, for use in the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. As part of the transaction, Biovail licensed back to the Company exclusive and irrevocable rights to certain of the acquired AMPAKINE compounds for use outside of the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. In September 2010, Biovail merged with Valeant. As a result of Valeant s merger and changes in strategic directions for the combined company, Valeant announced its intent to exit several therapeutic development programs, including the respiratory depression project acquired from the Company. The Company is in discussions with Valeant regarding the future of the project and under the agreement between the Company and Biovail, all contractual obligations remain in place.

To supplement its existing resources, in addition to seeking licensing arrangements with other pharmaceutical companies, the Company may seek to raise additional capital through the sale of debt or equity. There can be no assurance that such capital will be available on favorable terms, or at all. If additional funds are raised by issuing equity securities, dilution to existing stockholders is likely to result.

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Revenue Recognition

The Company recognizes revenue when all four of the following criteria are met: (i) pervasive evidence that an arrangement exists; (ii) delivery of the products and/or services has occurred; (iii) the fees earned can be readily determined; and (iv) collectibility of the fees is reasonably assured.

Amounts received for upfront technology license fees under multiple-element arrangements are deferred and recognized over the period of committed services or performance, if such arrangements require the Company s on-going services or performance.

Revenues from milestone payments are recognized when earned, as evidenced by written acknowledgement from the collaborator, provided that (i) the milestone event is substantive and its achievement was not reasonably assured at the inception of the agreement, and (ii) the Company s performance obligations, if any, after the milestone achievement will continue to be funded by the collaborator at a comparable level to that before the milestone was achieved. If both of these criteria are not met, the milestone payment would be recognized over the remaining minimum period of the Company s performance obligations under the arrangement.

The Company records grant revenues as the expenses related to the grant projects are incurred. Amounts received under research grants are nonrefundable, regardless of the success of the underlying research, to the extent that such amounts are expended in accordance with the approved grant project.

Employee Stock Options and Stock-based Compensation

The Company s 2006 Stock Incentive Plan (the 2006 Plan) provides for a variety of equity vehicles to allow flexibility in implementing equity awards, including incentive stock options, nonqualified stock options, restricted stock grants, stock appreciation rights, stock payment awards, restricted stock units and dividend equivalents to qualified employees, officers, directors, consultants and other service providers. In March 2010, the Board of Directors of the Company approved an increase in the number of shares authorized under the 2006 Plan of 2,500,000 shares, bringing the total authorized shares purchasable thereunder to 9,863,799. In May 2010, this increase was approved by the Company s stockholders.

The exercise price of stock options offered under the 2006 Plan must be at least 100% of the fair market value of the common stock on the date of grant. If the person to whom an incentive stock option is granted is a 10% stockholder of the Company on the date of grant, the exercise price per share shall not be less than 110% of the fair market value on the date of grant. Options granted generally vest over a three-year period, although options granted to officers may include more accelerated vesting. Options generally expire ten years from the date of grant, but options granted to consultants may expire five years from the date of grant.

The Company recognizes expense in its financial statements for all share-based payments to employees, including grants of employee stock options, based on their fair values, over the vesting period.

There were no employee stock options granted during the three months ended September 30, 2010. For options granted during the three months ended September 30, 2009 and the nine months ended September 30, 2010 and 2009, the fair value of each option award was estimated using the Black-Scholes option pricing model and the following assumptions:

	Three months ended September 30, 2009	Nine months ended September 30, 2010	Nine months ended September 30, 2009
Weighted average risk-free interest rate	2.7%	3.2%	2.8%
Dividend yield	0%	0%	0%
Volatility factor of the expected market price of the Company s common stock	102%	108%	101%
Weighted average life	6.9 years	6.9 years	6.9 years

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Expected volatility is based on the historical volatility of the Company s stock. The Company also uses historical data to estimate the expected term of options granted and employee termination rates. The risk-free rate for periods within the estimated life of the options is based on the U.S. Treasury yield curve in effect at the time of grant.

The weighted-average grant-date fair value per share of options granted during the three months ended September 30, 2009 was $0.17. For the nine months ended September 30, 2010 and 2009, the weighted-average grant-date fair value per share of options granted was $0.14 and $0.17, respectively.

A summary of option activity for the nine months ended September 30, 2010 for the 2006 Plan and the Company s prior stock option plans is as follows:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Balance, December 31, 2009	13,538,498	$ 1.41		
Granted	280,000	$ 0.16		
Exercised				
Forfeited	(238,542)	$ 0.56		
Expired	(696,867)	$ 2.33		
Balance, September 30, 2010	12,883,089	$ 1.35	5.6 years	
Exercisable, September 30, 2010	10,042,767	$ 1.66	4.7 years	

As of September 30, 2010, there was approximately $233,000 of total unrecognized compensation cost related to non-vested share-based compensation arrangements. That non-cash cost is expected to be recognized over a weighted-average period of 1.3 years.

Stock options and warrants issued as compensation for services to be provided to the Company by non-employees are accounted for based upon the fair value of the services provided or the estimated fair value of the option or warrant, whichever can be more clearly determined. The Company recognizes this expense over the period in which the services are provided. This expense is a non-cash charge and has no impact on the Company s available cash or working capital.

There were no stock option exercises during the nine months ended September 30, 2010 or 2009. The Company issues new shares to satisfy stock option exercises.

A summary of warrant activity for the nine months ended September 30, 2010 is as follows:

	Shares	Weighted Average Per Share Exercise Price
Balance, December 31, 2009	20,195,319	$ 0.89
Granted	4,081,633	$ 0.21
Exercised		
Expired	(150,000)	$ 2.78
Balance, September 30, 2010	24,126,952	$ 0.74

Warrants granted during the nine months ended September 30, 2010 were issued in connection with the conversion of the promissory note held by Samyang Optics Co., Ltd., as discussed more fully in Note 2 of the Notes to the Condensed Financial Statements, dated September 30, 2010.

All of the warrants outstanding as of September 30, 2010 are immediately exercisable.

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Net Income (Loss) per Share

For the three months ended September 30, 2010 and 2009 and the nine months ended September 30, 2009, the effect of potentially issuable shares of common stock was not included in the calculation of diluted loss per share given that the effect would be anti-dilutive.

For the nine months ended September 30, 2010, the following table reconciles the numerators and denominators of the basic and diluted income per share computations.

	For the Nine Months Ended September 30, 2010		
	Income (Numerator)	Shares (Denominator)	Per-Share Amount
Basic Earnings per Share:			
Income applicable to common stock	$ 2,613,194	72,851,033	$ 0.04
Effect of Dilutive Securities:			
Convertible promissory note	550,845	5,433,232	
Options to purchase common stock		7,600	
Diluted Earnings per Share:			
Income applicable to common stock + assumed conversions	$ 3,164,039	78,291,865	$ 0.04

In calculating diluted earnings per share, amounts added to the numerator represent charges recorded for the convertible promissory note (see Note 2 of the Notes to the Condensed Financial Statements, dated September 30, 2010), including non-cash charges related to the beneficial conversion feature within the promissory note and the allocated fair value of warrants issued upon such note s conversion.

Shares issued upon conversion of the convertible promissory note have been included in the denominator of diluted earnings per shares using the if converted method. As a result, shares assumed issued are weighted for the period the convertible securities were outstanding prior to conversion, and common shares actually issued are weighted for the period the shares were outstanding after conversion.

Options to purchase up to 12,703,089 shares of the Company s common stock at a weighted average price of $1.37 per share were outstanding as of September 30, 2010, but were excluded from the calculation of diluted income per share given that the options exercise price exceeded the average market price of the Company s common stock. Similarly, warrants to purchase up to 24,126,952 shares of the Company s common stock at a weighted average price of $0.74 per share were outstanding as of September 30, 2010 and were excluded from the calculation of diluted income per share given that the exercise price of the warrants exceeded the average market price of the Company s common stock.

Marketable Securities

Marketable securities are carried at fair value, with unrealized gains and losses, net of any tax, reported as a separate component of stockholders equity. The Company utilizes observable inputs based on quoted prices in active markets for identical assets to record the fair value of its marketable securities. Authoritative guidance that establishes a framework for fair value for generally accepted accounting principles in the United States deems observable inputs for identical assets as Level 1 inputs, the most reliable in the hierarchy of inputs for determining fair value measurements.

The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization is included in interest income. Realized gains and losses and declines in value judged to be other-than-temporary on short-term investments are included in interest income. The cost of securities sold is based on the specific identification method. Interest and dividends on securities classified as available-for-sale are included in interest income.

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Comprehensive Income (Loss)

The Company presents unrealized gains and losses on its marketable securities, classified as available for sale, in its statement of stockholders equity and comprehensive income or loss on an annual basis and in a note disclosure in its quarterly reports. Other comprehensive income or loss consists of unrealized gains or losses on the Company s marketable securities, which are comprised of corporate and foreign bonds and securities of the U.S. government or its agencies.

During the three months ended September 30, 2010 and 2009, total comprehensive loss was approximately $526,000 and $1,728,000, respectively, and included an unrealized gain and an unrealized loss on the Company s marketable securities of approximately $2,000 and less than $1,000, respectively.

During the nine months ended September 30, 2010, total comprehensive income was approximately $2,614,000 and included an unrealized gain on the Company s marketable securities of approximately $1,000. For the nine months ended September 30, 2009, total comprehensive loss was approximately $6,838,000, which included unrealized gains on the Company s marketable securities of approximately $4,000.

Reclassifications

Certain reclassifications have been made to the Statement of Cash Flows as of September 30, 2009 to conform to the 2010 presentation.

New Accounting Standards

In April 2010, the Financial Accounting Standards Board issued Accounting Standards Update No. 2010-17, Revenue Recognition Milestone Method (ASU 2010-17). ASU 2010-17 includes revenue-related guidance for companies that provide research or development deliverables in an arrangement in which one or more payments are contingent upon achieving uncertain future events or circumstances.

The amendments in the update are effective on a prospective basis for milestones achieved in fiscal years, and interim periods within those years, beginning on or after June 15, 2010. Early adoption is permitted and a company may elect, but is not required, to adopt the amendments in the update retrospectively for all prior periods.

Given that the guidance within the update is generally consistent with the Company s existing revenue recognition considerations for its milestone payments, the Company does not believe that adoption of the update will have a material impact on either its financial position or its result of operations.

Note 2 Convertible Promissory Note

In January 2010, the Company completed a private placement of a convertible promissory note in the principal amount of $1,500,000 with a single accredited institutional investor, Samyang Optics Co., Ltd. (Samyang) of Korea. The promissory note accrued simple interest at the rate of 6% per annum and was convertible into unregistered shares of the Company s common stock at Samyang s election at any time on or after April 15, 2010 and on or before the January 15, 2011 maturity date.

In June 2010, the promissory note and the related accrued interest were converted by Samyang into a total of 10,445,579 unregistered shares of the Company s common stock at an effective conversion price of $0.147 per share.

The number of common shares issuable upon conversion of the promissory note was based upon the greater of: (i) $0.134 per share or (ii) an amount representing a 15% discount to the five-day volume weighted average closing price of the Company s common stock immediately prior to the conversion date.

In connection with the conversion of the promissory note, the Company was obligated to issue to Samyang two-year warrants to purchase up to 4,081,633 additional unregistered shares of the Company s common stock at an exercise price of $0.206 per share. The warrants include a call right, in favor of the Company, to the extent the weighted average closing price of the Company s common stock exceeds $0.309 per share for each of ten consecutive trading days, subject to certain circumstances.

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In recording the proceeds from the private placement, the Company evaluated the conversion feature within the promissory note and determined that such embedded feature is indexed to the Company s common stock and should not be separated from the promissory note and accounted for as a derivative instrument. The Company also evaluated the exercise feature for the potentially issuable warrants and deemed the instruments indexed to the Company s common stock and subject to equity classification within the Company s balance sheet.

The value of the promissory note was estimated as of the issuance date based upon the fair value of the underlying common stock issuable upon its conversion. At the same time, the fair value of the warrants potentially issuable to the investor was estimated using the Black-Scholes option pricing model. The Company then used the relative fair value method to allocate the proceeds to the promissory note and the potentially issuable warrants.

Based upon the allocated proceeds, the Company calculated an effective conversion price for the promissory note and then measured the intrinsic value of the beneficial conversion right embedded within the promissory note. The beneficial conversion right is based on the difference between the fair value of the Company s common stock and the effective conversion price of the promissory note on the closing date of the offering.

The value of the beneficial conversion right of approximately $224,000 was originally amortized as interest expense over the 15-month period until potential redemption of the promissory note, or April 15, 2011, along with capitalized offering costs incurred in connection with the transaction. Upon conversion of the promissory note in June 2010, the unamortized balances for the beneficial conversion right and the capitalized offering costs were immediately amortized as interest expense.

Upon issuance of the warrants resulting from conversion of the promissory note, the previously estimated relative fair value allocated to the warrants was recorded as interest expense, with an offsetting entry to additional paid-in capital.

Note 3 Sale of Ampakine Assets

On March 25, 2010, the Company entered into an asset purchase agreement with Biovail. Pursuant to the asset purchase agreement, Biovail acquired the Company s interests in CX717, CX1763, CX1942 and the injectable dosage form of CX1739, as well as certain of its other Ampakine compounds and related intellectual property for use in the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease.

In connection with the transaction, Biovail paid the Company the lump sum of $9,000,000 upon the execution of the asset purchase agreement, which amount the Company recorded as revenue during the quarter ended March 31, 2010. Biovail subsequently paid the Company an additional $1,000,000 upon completion of the specified transfer plan, which the Company recorded as revenue upon its receipt during the quarter ended September 30, 2010.

In addition, the Company has the right to receive up to three milestone payments in an aggregate amount of up to $15,000,000 plus the reimbursement of certain related expenses, each conditioned upon the occurrence of particular events relating to the clinical development of certain assets that Biovail acquired.

As part of the transaction, Biovail licensed back to the Company certain exclusive and irrevocable rights to all dosage forms of CX1739, other than the injectable dosage form. Biovail s rights to the injectable dosage form of CX1739 are limited to use in the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. The Company is free to develop all other dosage forms of CX1739 for all uses outside of those indications. Accordingly, following the transaction with Biovail, the Company retains its rights to develop and commercialize the majority of its Ampakine compounds as a potential treatment for neurological diseases and psychiatric disorders. Additionally, the Company retains its rights to develop and commercialize the Ampakine compounds as a potential treatment for sleep apnea disorders.

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In September 2010, Biovail merged with Valeant. As a result of Valeant s merger and changes in strategic directions for the combined company, Valeant announced its intent to exit several therapeutic programs, including the respiratory depression project acquired from the Company. The Company is in discussions with Valeant regarding the future of the project and under the agreement between the Company and Biovail, all contractual obligations remain in place.

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth all costs and expenses, other than underwriting discounts and commissions, to be paid in connection with the sale of the securities being registered hereunder, all of which will be paid by us. All of the amounts shown are estimates except for the Securities and Exchange Commission registration fee.

SEC registration fee	$ 348.30
Printing fees and expenses	$ *
Legal fees and expenses	$ *
Accounting fees and expenses	$ *
Miscellaneous expenses	$ *
Total	$ *

* To be filed by amendment.

Item 14. Indemnification of Directors and Officers

Section 102(b)(7) of the Delaware General Corporation Law, or the DGCL, enables a corporation in its original certificate of incorporation or an amendment thereto to eliminate or limit the personal liability of a director to the corporation or its stockholders for monetary damages for breach of the director s fiduciary duty, except (i) for any breach of the director s duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) pursuant to Section 174 of the DGCL (providing for liability of directors for unlawful payment of dividends or unlawful stock purchases or redemptions) or (iv) for any transaction from which the director derived an improper personal benefit.

Section 145(a) of the DGCL empowers a corporation to indemnify any present or former director, officer, employee or agent of the corporation, or any individual who served or is serving at the corporation s request as a director, officer, employee or agent of another organization, who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation), against expenses (including attorneys fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding provided that such director, officer, employee or agent acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, provided further that such director, officer, employee or agent had no reasonable cause to believe his or her conduct was unlawful.

Section 145(b) of the DGCL empowers a corporation to indemnify any present or former director, officer, employee or agent or the corporation, or any individual who served or is serving at the corporation s request as a director, officer, employee or agent of another corporation, who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person acted in any of the capacities set forth above, against expenses (including attorneys fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit provided that such director, officer, employee or agent acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification may be made in respect of any claim, issue or matter as to which such director, officer, employee or agent shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all of the circumstances of the case, such director or officer is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

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Section 145 of the DGCL further provides that (i) to the extent a present or former director or officer has been successful on the merits or otherwise in the defense of any action, suit or proceeding referred to in subsections (a) and (b) of Section 145 of the DGCL, or in the defense of any claim, issue or matter therein, he or she shall be indemnified against expenses (including attorneys fees) actually and reasonably incurred by him or her in connection therewith; (ii) the indemnification and advancement of expenses provided for, by, or granted pursuant to, Section 145 of the DGCL shall not be deemed exclusive of any other rights to which the persons seeking indemnification may be entitled; and (iii) the corporation is empowered to purchase and maintain insurance on behalf of a present or former director, officer, employee or agent of the corporation, or any individual who is or was serving at the corporation s request as a director, officer or employee of another organization, against any liability asserted against him or her or incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the corporation would have the power to indemnify him or her against such liabilities under Section 145 of the DGCL.

As permitted by the DGCL, our second restated certificate of incorporation eliminates the liability of our directors to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent otherwise prohibited by the DGCL.

Our second restated certificate of incorporation provides that we will indemnify each person who was or is made a party to any proceeding by reason of the fact that such person is or was our director or officer against all expense, liability and loss reasonably incurred or suffered by such person in connection therewith to the fullest extent authorized by the DGCL.

Our second restated certificate of incorporation also gives us the ability to enter into indemnification agreements with each of our directors and officers. We have entered into such indemnification agreements with each of our directors and executive officers. The indemnification agreements provide for the indemnification of our directors and executive officers against any and all expenses, judgments, fines, penalties and amounts paid in settlement, to the fullest extent permitted by law.

Item 15. Recent Sales of Unregistered Securities

Convertible Promissory Note Transaction

In January 2010, we completed a private placement of a convertible promissory note in the principal amount of $1,500,000 with a single accredited institutional investor, Samyang Optics Co., Ltd. of Korea, or Samyang. The promissory note accrued simple interest at the rate of 6% per annum and was convertible into unregistered shares of our common stock at Samyang s election at any time on or after April 15, 2010 and on or before the January 15, 2011 maturity date.

In June 2010, the promissory note and the related accrued interest were converted by Samyang into a total of 10,445,579 unregistered shares of our common stock at an effective conversion price of $0.147 per share.

The number of common shares issuable upon conversion of the promissory note was based upon the greater of: (i) $0.134 per share or (ii) an amount representing a 15% discount to the five-day volume weighted average closing price of our common stock immediately prior to the conversion date.

In connection with the conversion of the promissory note, we were obligated to issue to Samyang two-year warrants to purchase up to 4,081,633 additional unregistered shares of our common stock at an exercise price of $0.206 per share. The warrants include a call right, in our favor, to the extent the weighted average closing price of our common stock exceeds $0.309 per share for each of ten consecutive trading days, subject to certain circumstances.

Series F Convertible Preferred Stock Transaction

In July 2009, we issued 4,029 shares of our newly designated Series F Convertible Preferred Stock and warrants to purchase up to an aggregate of 6,060,470 shares of our common stock in a private placement to a single accredited investor (as defined by Rule 501 under the Securities Act). The shares of Series F Convertible Preferred Stock, with a stated value of $1,000 per share, were convertible into shares of common stock at a price of $0.3324 per share and were fully-converted into an aggregate of 12,120,938 shares of common stock as of September 30, 2009. The resale of the shares of common stock underlying the Series F Convertible Preferred Stock was registered pursuant to a registration on Form S-3 (No. 333-161143) that the SEC declared effective on August 20, 2009. The related warrants have an exercise price of $0.2699 per share and are exercisable on or after January 31, 2010 and on or before January 31, 2013. The warrants are subject to a call provision that permits us to cancel the warrants (unless earlier exercise by the holder) in the event the volume weighted average price of our common stock exceeds $0.5398 for a period of 20 consecutive trading days, the average daily volume of our common stock during such 20 trading day period exceeds $100,000 per trading day and certain other conditions are satisfied. The gross proceeds of the offering were $4,029,000, of which $2,029,000 was placed into

escrow at the closing and subsequently paid to the investor upon conversion of the Series F Convertible Preferred Stock.

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Additionally, we issued unregistered warrants to purchase up to an aggregate of 606,047 shares of our common stock to the placement agent for the transaction, Rodman & Renshaw, LLC. These warrants have an exercise price of $0.3656 per share, are exercisable on or after January 31, 2010 and on or before January 31, 2013, and contain the same call rights as the warrants issued to the investor.

0% Series E Convertible Preferred Stock Transaction

In connection with our April 2009 registered issuance of our newly designated 0% Series E Convertible Preferred Stock and warrants, we also issued unregistered warrants to purchase up to an aggregate of 433,824 shares of our common stock to the placement agent for the transaction, Rodman & Renshaw, LLC. These warrants have an exercise price of $0.26 per share and are exercisable on or after October 17, 2009 and on or before October 17, 2012.

The issuance of the foregoing securities in each of the transactions described above was made in reliance upon the exemption from the registration provisions of the Securities Act set forth in Section 4(2) thereof as a transaction by an issuer not involving any public offering. The respective transaction documents contain representations to support our reasonable belief that each investor is an accredited investor as defined in Rule 501 under the Securities Act, and that such investor is acquiring such securities for investment and not with a view to the distribution thereof. At the time of their issuance, the securities described above were deemed to be restricted securities for purposes of the Securities Act and such securities (and shares issued upon exercise of the unregistered warrants will) bear legends to that effect.

Item 16. Exhibits and Financial Statement Schedules

(a) ***Exhibits***

Exhibit Number	Description
1.1	Form of Placement Agency Agreement to be entered into by the Company and the Placement Agent.**
1.2	Form of the Purchase Agreement to be entered into by the Company and the purchasers in the offering.**
3.1	Second Restated Certificate of Incorporation dated May 19, 2010, incorporated by reference to the same numbered Exhibit to the Company s Current Report on Form 8-K filed May 24, 2010.
3.2	By-Laws of the Company, as adopted March 4, 1987, and amended on October 8, 1996, incorporated by reference to the same numbered Exhibit to the Company s Annual Report on Form 10-KSB filed October 15, 1996.
3.5	Certificate of Amendment of By-Laws of the Company, incorporated by reference to the same numbered Exhibit to the Company s Report on Form 8-K filed November 15, 2007.
4.1	Rights Agreement, dated as of February 8, 2002, between the Company and American Stock Transfer & Trust Company, which includes as Exhibit A thereto a form of Certificate of Designation for the Series A Junior Participating Preferred Stock, as Exhibit B thereto the Form of Rights Certificate and as Exhibit C thereto a Summary of Terms of Stockholder Rights Plan, incorporated by reference to Exhibit 4.1 to the Company s Registration Statement on Form 8-A, filed May 26, 2010.
4.2	Placement Agency Agreement, dated January 16, 2007, by and between Cortex Pharmaceuticals, Inc. and Roth Capital Partners, LLC, Form of Subscription Agreement and Form of Common Stock Purchase Warrant issued by Cortex Pharmaceuticals, Inc., incorporated by reference to Exhibits 1.1, 1.2 and 4.1, respectively, to the Company s Report on Form 8-K filed January 19, 2007.

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Exhibit Number	Description
4.3	Placement Agency Agreement, dated August 24, 2007, by and between Cortex Pharmaceuticals, Inc. and JMP Securities LLC and Rodman and Renshaw, LLC, Form of Subscription Agreement and Form of Common Stock Purchase Warrant issued by Cortex Pharmaceuticals, Inc., incorporated by reference to Exhibits 1.1, 1.2 and 4.1, respectively, to the Company s Report on Form 8-K filed August 27, 2007.
4.4	Placement Agency Agreement, dated April 13, 2009, by and between the Company and Rodman & Renshaw, LLC, Form of Securities Purchase Agreement and Form of Common Stock Purchase Warrant issued by the Company, incorporated by reference to Exhibits 1.1, 1.2 and 4.1, respectively, to the Company s Current Report on Form 8-K filed April 17, 2009.
4.5	Form of Warrant.**
5.1	Opinion of Stradling Yocca Carlson & Rauth, a Professional Corporation.
10.3	Consulting Agreement, dated as October 30, 1987, between the Company and Gary S. Lynch, Ph.D., incorporated by reference to the same numbered Exhibit to the Company s Registration Statement on Form S-1, No. 33-28284, effective on July 18, 1989.*
10.19	License Agreement dated March 27, 1991 between the Company and the Regents of the University of California, incorporated by reference to the same numbered Exhibit to the Company s Amendment on Form 8 filed November 27, 1991 to the Company s Annual Report on Form 10-K filed September 30, 1991. (Portions of this Exhibit are omitted and were filed separately with the Secretary of the Commission pursuant to the Company s application requesting confidential treatment under Rule 24b-2 under the Securities Exchange Act of 1934).
10.31	License Agreement dated June 25, 1993, as amended, between the Company and the Regents of the University of California, incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-Q filed February 12, 2004. (Portions of this exhibit are omitted and were filed separately with the Secretary of the Commission pursuant to the Company s application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934).
10.44	Lease Agreement, dated January 31, 1994, for the Company s facilities in Irvine, California, incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-QSB filed May 16, 1994.
10.60	Amended and Restated 1996 Stock Incentive Plan, incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-Q as filed on November 14, 2002.*
10.65	Amendment No. 1 to the Lease Agreement for the Company s facilities in Irvine, California, dated February 1, 1999, incorporated by reference to the same numbered Exhibit to the Company s Annual Report on Form 10-KSB filed September 28, 1999.
10.67	Collaborative Research, Joint Clinical Research and Licensing Agreements with Les Laboratoires Servier dated October 13, 2000, incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-QSB filed November 14, 2000. (Portions of this Exhibit were omitted and filed separately with the Secretary of the Commission pursuant to the Company s application requesting confidential treatment under Rule 24b-2 of the Securities Act of 1934).
10.69	Employment agreement dated May 17, 2000, between the Company and James H. Coleman, incorporated by reference to the same numbered Exhibit to the Company s Report on Form 10-QSB filed February 12, 2001.*
10.70	Severance agreement dated October 26, 2000, between the Company and Maria S. Messinger, incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-QSB filed February 12, 2001.*

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Exhibit Number	Description
10.73	Amendment dated October 3, 2002 to the Collaboration Research Agreement with Les Laboratoires Servier dated October 13, 2000, incorporated by reference to the same numbered Exhibit to the Company s Annual Report on Form 10-K filed October 15, 2002.
10.74	Employment agreement dated October 29, 2002 between the Company and Roger G. Stoll, Ph.D., incorporated by reference to the same numbered exhibit to the Company s Quarterly Report on Form 10-Q, as filed on November 14, 2002.*
10.76	First Amendment dated August 8, 2003 to the employment agreement between the Company and Roger G. Stoll, Ph.D., incorporated by reference to the same numbered Exhibit to the Company s Annual Report on Form 10-K filed September 19, 2003.*
10.77	Amendment dated December 16, 2003 to the Collaboration Research Agreement with Les Laboratoires Servier dated October 13, 2000, incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-Q filed February 12, 2004. (Portions of this Exhibit are omitted and were filed separately with the Secretary of the Commission pursuant to the Company s application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934).
10.79	Amendment No. 2 to the Lease Agreement for the Company s facilities in Irvine, California, dated March 9, 2004, incorporated by reference to the same numbered Exhibit to the Company s Annual Report on Form 10-K filed on September 27, 2004.
10.80	Form of Incentive/Nonqualified Stock Option Agreement under the Company s Amended and Restated 1996 Stock Incentive Plan, incorporated by reference to the same numbered Exhibit to the Company s Annual Report on Form 10-K filed on September 27, 2004.*
10.81	Form of Restricted Stock Award under the Company s Amended and Restated 1996 Stock Incentive Plan, incorporated by reference to the same numbered Exhibit to the Company s Annual Report on Form 10-K filed on September 27, 2004.*
10.82	Amendment dated January 1, 2004 to the employment agreement dated May 17, 2000 between the Company and James H. Coleman, incorporated by reference to the same numbered Exhibit to the Company s Annual Report on Form 10-K filed on September 27, 2004.*
10.86	Second Amendment dated November 10, 2004 to the employment agreement dated October 29, 2002 between the Company and Roger G. Stoll, Ph.D., incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-Q filed on November 15, 2004.*
10.88	Form of Notice of Grant of Stock Options and Stock Option Agreement under the Company s Amended and Restated 1996 Stock Incentive Plan, incorporated by reference to the same numbered Exhibit to the Company s Annual Report on Form 10-K filed March 21, 2005.*
10.89	Stock Ownership Policy for the Company s Directors and Executive Officers as adopted by the Company s Board of Directors on December 16, 2004, incorporated by reference to the same numbered Exhibit to the Company s Annual Report on Form 10-K filed March 21, 2005.*
10.90	Third Amendment dated August 13, 2005 to the employment agreement dated October 29, 2002 between the Company and Roger G. Stoll, Ph.D, incorporated by reference to Exhibit 10.1 to the Company s Report on Form 8-K filed August 17, 2005.*

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Exhibit Number	Description
10.92	Employment letter of agreement dated January 9, 2006 between the Company and Mark Varney, Ph.D., incorporated by reference to the same numbered Exhibit to the Company s Annual Report on Form 10-K filed March 16, 2006.*
10.93	Non-qualified Stock Option Agreement dated January 30, 2006 between the Company and Mark Varney, Ph.D., incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-Q filed May 9, 2006.*
10.94	Cortex Pharmaceuticals, Inc. 2006 Stock Incentive Plan, incorporated by reference to the same numbered Exhibit to the Company s Report on Form 8-K filed May 11, 2006.*
10.96	Form of Notice of Grant of Stock Options and Stock Option Agreement under the Company s 2006 Stock Incentive Plan, incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-Q filed August 8, 2006.*
10.97	Form of Incentive/Non-qualified Stock Option Agreement under the Company s 2006 Stock Plan, incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-Q filed August 8, 2006.*
10.98	Amendment No. 3, dated April 1, 2006, to the Lease Agreement for the Company s facilities in Irvine, California, incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-Q filed August 8, 2006.
10.100	Negative Equity Agreement dated February 1, 2007 between the Company and Mark A. Varney, Ph.D., incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-Q filed May 10, 2007.*
10.101	Amendment No. 1 to the Company s 2006 Stock Incentive Plan, incorporated by reference to the same numbered Exhibit to the Company s Current Report on Form 8-K filed May 15, 2007.*
10.102	Amendment to the Exclusive License Agreement between the Company and The Regents of the University of California, dated as of June 1, 2007, incorporated by reference to the same numbered Exhibit to the Company s Current Report on Form 8-K filed June 7, 2007.
10.105	Patent License Agreement between the Company and the University of Alberta, dated as of May 9, 2007, incorporated by reference to the same numbered Exhibit to the Company s Annual Report on Form 10-K filed March 17, 2008 (Portions of this Exhibit are omitted and were filed separately with the Secretary of the Commission pursuant to the Company s application requesting confidential treatment under Rule 24b-2 under the Securities Exchange Act of 1934).
10.107	Severance Agreement dated May 2, 2008, between the Company and Steven A. Johnson, Ph.D., incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-Q filed May 8, 2008.*
10.108	Amendment No. 4, dated June 6, 2008, to the Lease Agreement for the Company s facilities in Irvine, California, incorporated by reference to the same numbered Exhibit to the Company s Report on Form 8-K filed June 10, 2008.
10.109	Fourth Amendment, dated July 11, 2008, to the employment agreement dated October 29, 2002 between the Company and Roger G. Stoll, Ph.D., incorporated by reference to the same Numbered Exhibit to the Company s Report on Form 8-K filed July 17, 2008.*

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Exhibit Number	Description
10.110	Amendment No. 2 to Employment Agreement, dated as of December 22, 2008, between the Company and James H. Coleman, incorporated by reference to the same numbered Exhibit to the Company s Report on Form 8-K filed December 23, 2008.*
10.111	Amendment No. 1 Severance Agreement, dated as of December 22, 2008, between the Company and Maria S. Messinger, incorporated by reference to the same numbered Exhibit to the Company s Report on Form 8-K filed December 23, 2008.*
10.112	Employment Agreement, dated as of December 19, 2008, between the Company and Mark A. Varney, Ph.D., incorporated by reference to the same numbered Exhibit to the Company s Report on Form 8-K filed December 23, 2008.*
10.113	Form of Retention Bonus Agreement, dated March 13, 2009, between the Company and each of its executive officers, incorporated by reference to the same numbered Exhibit to the Company s Current Report on Form 8-K filed March 19, 2009.*
10.114	Securities Purchase Agreement, dated July 29, 2009, by and between the Company and the investor, including a form of Registration Rights Agreement attached as Exhibit B thereto and a form of Common Stock Purchase Warrant attached as Exhibit C thereto, incorporated by reference to the same numbered Exhibit to the Company s Current Report on Form 8-K filed July 29, 2009.
10.115	Amendment No. 2 to the Company s 2006 Stock Incentive Plan, effective as of June 5, 2009, incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-Q filed August 14, 2009.*
10.116	Asset Purchase Agreement, dated March 25, 2010, by and between the Company and Biovail Laboratories International SRL, incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-Q filed on May 17, 2010. (Portions of this Exhibit are omitted and were filed separately with the Secretary of the Commission pursuant to the Company s application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934.)
10.117	License Agreement, dated March 25, 2010, by and between the Company and Biovail Laboratories International SRL, incorporated by reference to the same numbered Exhibit to the Company s Quarterly Report on Form 10-Q filed on May 17, 2010. (Portions of this Exhibit are omitted and were filed separately with the Secretary of the Commission pursuant to the Company s application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934.)
10.118	Amendment No. 3 to the Company s 2006 Stock Incentive Plan, incorporated by reference to the same numbered Exhibit to the Company s Current Report on Form 8-K filed May 24, 2010.*
10.119	Sixth Amendment dated August 12, 2010 to the employment agreement dated October 29, 2002 between the Company and Roger G. Stoll, Ph.D., incorporated by reference to the same numbered Exhibit to the Company s Current Report on Form 8-K filed August 18, 2010.*
10.120	Amendment to the License Agreement between the Company and The Regents of the University of California, dated as of August 24, 2010, incorporated by reference to the same numbered Exhibit to the Company s Current Report on Form 8-K filed August 30, 2010.
21	Subsidiaries of the Registrant.

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Exhibit Number	Description
23.1	Consent of Haskell & White LLP, Independent Registered Public Accounting Firm.
23.2	Consent of Stradling Yocca Carlson & Rauth (included in Exhibit 5.1)
24	Power of Attorney (included as part of the signature page of this registration statement on Form S-1).

* Each of these Exhibits constitutes a management contract, compensatory plan or arrangement.
** To be filed by amendment.

(b) ***Financial Statement Schedules***
All schedules have been omitted because the information required to be presented in them is not applicable or is shown in the consolidated financial statements or related notes.

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 Securities 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 Securities Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

1. For purposes of determining any liability under the Securities Act, 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, 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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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Irvine, State of California, on the 19 day of January, 2011.

CORTEX PHARMACEUTICALS, INC.

By: /s/ Maria S. Messinger
Chief Financial Officer
(Principal Financial and Accounting Officer)

POWER OF ATTORNEY

We, the undersigned directors and officers of Cortex Pharmaceuticals, Inc., do hereby constitute and appoint Roger G. Stoll Ph.D., Mark A. Varney, Ph.D. and Maria S. Messinger, or any of them, our true and lawful attorneys and agents, to do any and all acts and things in our name and behalf in our capacities as directors and officers and to execute any and all instruments for us and in our names in the capacities indicated below, which said attorneys and agents, or any of them, may deem necessary or advisable to enable said corporation to comply with the Securities Act of 1933, as amended, and any rules, regulations, and requirements of the Securities and Exchange Commission, in connection with this registration statement, including specifically, but without limitation, power and authority to sign for us or any of us in our names and in the capacities indicated below, any and all amendments (including post-effective amendments) to this registration statement, or any related registration statement that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended; and we do hereby ratify and confirm all that the said attorneys and agents, or any of them, shall 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 below by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Mark A. Varney Mark A. Varney, Ph.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	January 19, 2011
/s/ Maria S. Messinger Maria S. Messinger	Chief Financial Officer (Principal Financial and Accounting Officer)	January 19, 2011
/s/ Roger G. Stoll Roger G. Stoll, Ph.D.	Executive Chairman of the Board of Directors	January 19, 2011
/s/ Robert F. Allnutt Robert F. Allnutt	Director	January 19, 2011
/s/ John F. Benedik John F. Benedik	Director	January 19, 2011
/s/ Charles J. Casamento Charles J. Casamento	Director	January 19, 2011
/s/ Carl W. Cotman Carl W. Cotman, Ph.D.	Director	January 19, 2011
/s/ Peter F. Drake Peter F. Drake, Ph.D.	Director	January 19, 2011

/s/ M. Ross Johnson M. Ross Johnson, Ph.D.	Director	January 19, 2011