

CORTEX PHARMACEUTICALS, INC.
15231 Barranca Parkway
Irvine, California 92618

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

May 19, 2010

To the Stockholders of Cortex Pharmaceuticals, Inc.:

The Annual Meeting of Stockholders of Cortex Pharmaceuticals, Inc., a Delaware corporation (the "Company"), will be held at the Marriott Newport Beach Hotel, 900 Newport Center Drive, Newport Beach, California, on Wednesday, May 19, 2010 at 10:30 a.m. Pacific Daylight Time, to consider and vote on the following matters described in the attached proxy statement:

- (1) The election of eight (8) directors to serve until the next Annual Meeting of Stockholders or until their successors are elected and duly qualified (Proposal 1);
- (2) The approval (recommended by the Board of Directors) of an amendment to the Company's 2006 Stock Incentive Plan to increase the number of shares of common stock thereunder by 2,500,000 shares (Proposal 2);
- (3) The ratification of the appointment of Haskell & White LLP as independent registered public accountants of the Company for the fiscal year ending December 31, 2010 (Proposal 3); and
- (4) Such other business as may properly come before the meeting or any adjournment thereof.

The Board of Directors has fixed the close of business on April 8, 2010 as the record date for the determination of stockholders entitled to notice of and to vote at the meeting or any postponement and adjournment thereof. The stock transfer books will not be closed.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders to Be Held on May 19, 2010.

Pursuant to recent rules promulgated by the Securities and Exchange Commission we have elected to provide access to our proxy materials both by sending you this full set of proxy materials, including a notice of annual meeting, proxy card and Annual Report on Form 10-K, and by notifying you of the availability of our proxy materials on the Internet.

The notice of annual meeting, proxy statement, proxy card and Annual Report on Form 10-K are available at <http://www.amstock.com/proxyservices/viewmaterials.asp?CoNumber=01485>. In accordance with the new rules, the materials on the site are searchable, readable and printable and the site does not have "cookies" or other tracking devices which identify visitors.

The Board of Directors welcomes the personal attendance of stockholders at the meeting. **However, please sign and return the enclosed proxy**, which you may revoke at any time prior to its use, **whether or not you expect to attend the meeting**. A self-addressed, postage prepaid envelope is enclosed for your convenience. Your proxy will not be used if you attend the meeting and choose to vote in person.

By Order of the Board of Directors

Maria S. Messinger, CPA
Secretary

Irvine, California
April 16, 2010

**CORTEX PHARMACEUTICALS, INC.
15231 Barranca Parkway
Irvine, California 92618**

**PROXY STATEMENT
ANNUAL MEETING OF STOCKHOLDERS
To Be Held May 19, 2010
10:30 a.m.**

Solicitation and Revocation of Proxies

The accompanying proxy is solicited by and on behalf of the Board of Directors of Cortex Pharmaceuticals, Inc., a Delaware corporation (the "Company"), and the Company will bear the cost of such solicitation. Solicitation of proxies will be primarily by mail, although some of the officers, directors and employees of the Company may solicit proxies personally or by telephone. The Company has retained The Altman Group as its proxy solicitation agent, and has agreed to pay The Altman Group a fee of \$6,500 plus out of pocket expenses. The Company also will reimburse brokerage houses and other custodians, nominees or fiduciaries for their reasonable expenses in sending proxy materials to their principals.

The person named as proxy was designated by the Board of Directors and is a director of the Company. All properly executed proxies will be voted (except to the extent that authority to vote has been withheld) and where a choice has been specified by the stockholder as provided in the proxy it will be voted in accordance with the specification so made. Proxies submitted without specification will be voted FOR the election as directors of the nominees proposed by the Board of Directors, FOR the approval of an amendment to the Company's 2006 Stock Incentive Plan to increase the number of shares of common stock issuable thereunder by 2,500,000 shares, and FOR the ratification of Haskell & White LLP as the Company's independent registered public accountants.

Any stockholder may revoke a proxy at any time before it is voted at the meeting by a proxy bearing a later date. A proxy may also be revoked by any stockholder by delivering written notice of revocation to the Secretary of the Company or by voting in person at the meeting.

This proxy statement and proxy are being mailed to stockholders of the Company on or about April 16, 2010.

Voting at the Meeting

Only record holders of common stock of the Company at the close of business on April 8, 2010, will be entitled to notice of, and to vote at, the meeting. As of the record date, there were 68,412,618 shares of the Company's common stock outstanding. The presence at the meeting of a majority of the outstanding shares, in person or by proxy relating to any matter to be acted upon at the meeting, is necessary to constitute a quorum for the meeting. Each outstanding share is entitled to one vote on all matters, except as noted below. For purposes of the quorum and the discussion below regarding the vote necessary to take stockholder action, stockholders of record who are present at the meeting in person or by proxy and who vote for or against, abstain or withhold their vote from a matter, including broker non-votes, are considered

stockholders who are present and entitled to vote and count toward the quorum. As used herein, “broker non-vote” means the votes that are not cast on the matter in question by a broker with respect to shares because (i) the broker has not received voting instructions from the beneficial owner on such matter and (ii) such broker lacks discretionary voting authority to vote the shares on such matter. Brokers holding shares of record for beneficial owners generally are entitled to exercise their discretion to vote on proposal 3 included in this proxy statement unless they receive other instructions from their customers. The effect of proxies marked “withheld” as to any director nominee or “abstain” as to a particular proposal and broker non-votes on proposals 1, 2 and 3 is discussed under each respective proposal.

PROPOSAL 1

ELECTION OF DIRECTORS

The persons named in the enclosed proxy will vote to elect the eight (8) proposed nominees named below unless contrary instructions are given in the proxy. The election of directors shall be by the affirmative vote of the holders of a plurality of the shares voting in person or by proxy at the meeting. Each director is to hold office until the next annual meeting and until his successor is elected and qualified.

The names and certain information concerning the persons nominated by the Board of Directors to become directors at the meeting are set forth below. Each of the proposed nominees currently serves as a member of the Board of Directors. **The Company’s Board of Directors recommends that you vote FOR the election of each of the nominees named below.** It is intended that shares represented by the proxies will be voted FOR the election to the Board of Directors of the persons named below unless authority to vote for nominees has been withheld in the proxy. Broker non-votes and proxies marked “withheld” as to one or more of the nominees will result in the respective nominees receiving fewer votes. However, the number of votes otherwise received by the nominee will not be reduced by such action. Although each of the persons named below has consented to serve as a director if elected and the Board of Directors has no reason to believe that any of the nominees named below will be unable to serve as a director, if any nominee withdraws or otherwise becomes unavailable to serve, the persons named as proxies will vote for any substitute nominee designated by the Board of Directors.

Nominees for Director

The names of the nominees for director and certain biographical information about them are set forth below:

<u>Name</u>	<u>Age</u>	<u>Director Since</u>	<u>Principal Occupation</u>
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.....	67	2002	Executive Chairman of the Company
Mark A. Varney, Ph.D. ⁽⁴⁾	43	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 (“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 (“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. Allnut 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.

The Company believes that Mr. Allnut'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. Allnut currently serves on both the Compensation Committee and the Governance and Nominations Committee.

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.

The Company believes 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.

The Company believes 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 the Audit Committee and the 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.

The Company believes 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 the 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.

The Company believes 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 the Governance and Nominations Committees and as a member of the 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.

The Company believes 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 the Compensation Committee and as a member of the Research and Development Committee.

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.

The Company believes 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 of Directors 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 the basis for 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.

The Company believes 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 of Directors 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 the Company's research platform as well as to the Company's overall success.

Executive Officers

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

<u>Name</u>	<u>Age</u>	<u>Position with Company</u>
Roger G. Stoll, Ph.D.	67	Executive Chairman
Mark A. Varney, Ph.D.	43	President and Chief Executive Officer
Pierre V. Trân, M.D., M.M.M.	50	Chief Medical Officer and Vice President, Clinical Development
Maria S. Messinger	42	Vice President, Chief Financial Officer and Corporate Secretary
James H. Coleman	68	Senior Vice President, Business Development
Steven A. Johnson	58	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.

Pierre V. Trân, M.D., M.M.M. was appointed Chief Medical Officer and Vice President, Clinical Development in October 2007. Prior to joining the Company, from September 2004 to October 2007, he was the senior vice president and chief medical officer of XenoPort, Inc. From 2002 to July 2004, Dr. Trân was global medical director, Joint Antidepressant Group, of Eli Lilly and Company. From 1992 to 2002, Dr. Trân was a physician in clinical research within the Neuroscience Group of Eli Lilly and Company. Dr. Trân received an M.D. from the Université de Franche-Comté (Besançon) in France and a Masters in Medical Management from Tulane University. He completed his residency training at Duke University and earned board certification in general adult psychiatry. Dr. Trân holds an academic appointment as Assistant Consulting Professor in the Department of Psychiatry of Duke University. Along with contributing to several books, he has extensive publications in peer-reviewed journals and has been a reviewer for the Journal of Clinical Psychiatry, the Journal of Clinical Psychopharmacology, Progress in Neuropsychopharmacology & Biological Psychiatry, and the Journal of Psychiatric Research. Dr. Trân is a member of the American Psychiatric Association and the Society of Biological Psychiatry.

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. (“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.

Scientific Consultants

In addition to Dr. Cotman, whose biographical summary has been presented earlier, the other key scientific consultant to the Company is Gary S. Lynch, Ph.D. Gary D. Tollefson, M.D., Ph.D. served as a consultant from April 2004 until his death in March 2009. 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.

Corporate Governance

The Board of Directors is committed to good business practices, transparency in financial reporting and the highest level of corporate governance. The Board of Directors previously implemented the following policies and procedures:

- ***Independent Directors.*** 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.
- ***Audit Committee.*** Each member of the Company’s standing Audit Committee is an “independent director” under Section 803 of the NYSE Amex Company Guide and as that term is used in Rule 10A-3 promulgated under the Securities Exchange Act of 1934, as amended. The Company’s Audit Committee is described in further detail below under the heading “Board Committees.”
- ***Compensation Committee.*** Each member of the Company’s standing Compensation Committee is an “independent director” under Section 803 of the NYSE Amex Company Guide. The Company’s Compensation Committee is described in further detail below under the heading “Board Committees.”
- ***Governance and Nominations Committee.*** Each member of the Company’s Governance and Nominations Committee is an “independent director” under Section 803 of the NYSE Amex Company Guide. The Governance and Nominations Committee is described in further detail below under the heading “Board Committees.”
- ***Research and Development Committee.*** The Company has a Research and Development Committee, as described in further detail below under the heading “Board Committees.”
- ***Stockholder Communications.*** Stockholders may communicate with the Board of Directors, its Committees or any of the individual directors by sending written communications addressed to the Board of Directors, a Committee or any of the individual directors, c/o Chief Financial Officer, Cortex Pharmaceuticals, Inc., 15231 Barranca Parkway, Irvine, California 92618. All communications are compiled by the Chief Financial Officer and forwarded to the Board of Directors, Committee or the individual director(s) accordingly. The Chief Financial Officer will acknowledge receipt to the sender, unless the sender has submitted the communication anonymously.
- ***Director Attendance at Annual Meeting of Stockholders.*** Directors are strongly encouraged to attend annual meetings of the Company’s stockholders. All of the Company’s eight directors serving at the time of the Company’s 2009 annual meeting attended such meeting.
- ***Code of Ethics.*** In compliance with Section 406 of the Sarbanes-Oxley Act of 2002, the Company has adopted a Code of Business Conduct and Ethics, which covers all directors and employees, including its principal executive and financial officers. Any amendment or

waiver to its Code of Business Conduct and Ethics that applies to its directors or executive officers will be posted on its website at www.cortexpharm.com or in a report filed with the Securities and Exchange Commission on Form 8-K. A copy of its Code of Business Conduct and Ethics is available free of charge upon written request to its Corporate Secretary at 15231 Barranca Parkway, Irvine, California 92618.

- ***Indebtedness of Management.*** The Company complies with and will operate in a manner consistent with legislation outlawing extensions of credit in the form of a personal loan to or for its directors and executive officers.

Board Leadership Structure

The Board of Directors believes that Dr. Roger G. Stoll is best situated to serve as Executive Chairman of the Board given that, as a former President and Chief Executive Officer of the Company, Dr. Stoll is exceedingly familiar with the Company's business and industry. The Board of Directors believes that in the role as Executive Chairman of the Company Dr. Stoll can act effectively as a liaison between members of management and non-management directors in order to facilitate information flow between management and the Board of Directors, which is essential to effective governance. The Board of Directors does not have a separately appointed lead independent director.

Board Committees

Audit Committee. The Audit Committee meets with the Company's independent registered public accountants and management to prepare for and to review the results of the annual audit and to discuss the annual and quarterly financial statements, earnings releases and related matters. The Audit Committee, among other things, (i) selects and retains the independent registered public accountants, (ii) reviews with the independent registered public accountants the scope and anticipated cost of their audit, and their independence and performance, (iii) reviews accounting practices, financial structure and financial reporting, (iv) receives and considers the registered public accountants' comments as to controls, adequacy of staff and management performance and procedures in connection with audit and financial controls, (v) reviews and pre-approves all audit and non-audit services provided to the Company by the independent registered public accountants, and (vi) reviews and pre-approves all related-party transactions. The Audit Committee does not itself prepare financial statements or perform audits, and its members are not auditors or certifiers of the Company's financial statements.

During the fiscal year ended December 31, 2009 and through the date of this proxy statement, the Audit Committee consisted of Mr. Benedik as Chairman of the Committee, Dr. Drake and Mr. Casamento. None of Mr. Benedik, Dr. Drake, or Mr. Casamento is or has been an officer or employee of the Company and in all other respects meets the qualifications of an "independent director" under Section 803 of the NYSE Amex Company Guide and as that term is used in Rule 10A-3 promulgated under the Securities Exchange Act of 1934, as amended. The Audit Committee held four (4) meetings with the independent registered public accountants during the fiscal year ended December 31, 2009 to discuss the annual audit of the financial statements for the fiscal year ended December 31, 2008, and the review of the financial statements for the quarters ended March 31, 2009, June 30, 2009 and September 30, 2009. The Audit Committee operates under a written charter adopted by the Board of Directors, a copy of which is available on the Company's website at www.cortexpharm.com. The Company's Board of Directors has determined that Mr. Benedik, Chairman of the Audit Committee, qualifies as an "audit committee financial expert" under rules promulgated by the Securities and Exchange Commission.

Compensation Committee. The functions of the Compensation Committee include, without limitation, administering the Company's incentive ownership programs and approving the compensation to be paid to the Company's directors and executive officers. The Compensation Committee meets no less frequently than annually as circumstances dictate to discuss and determine executive officer and director compensation. The Compensation Committee's Chairman reports the Committee's findings and recommendations to the Board. The Company's Chief Executive Officer annually reviews the performance of each executive officer (other than the Chief Executive Officer, whose performance is reviewed by the Compensation Committee). The conclusions reached and recommendations based on these reviews, including with respect to salary adjustments and annual award amounts, are presented to the Compensation Committee, who can exercise its discretion in modifying any recommended adjustments or awards to executive officers. See "EXECUTIVE COMPENSATION – Compensation Discussion and Analysis" and "Director Compensation." The Compensation Committee does not generally retain the services of any compensation consultants. The Compensation Committee has the power to form and delegate authority to subcommittees when appropriate, provided that such subcommittees are composed entirely of directors who would qualify for membership on the Compensation Committee.

The Compensation Committee held three (3) meetings during the fiscal year ended December 31, 2009 and was comprised of Dr. Johnson as Chairman of the Committee, Mr. Allnutt and Mr. Casamento. None of Dr. Johnson, Mr. Allnutt or Mr. Casamento is or has been an officer or employee of the Company and in all other respects each meets the qualifications of an "independent director" under Section 803 of the NYSE Amex Company Guide. The Compensation Committee operates under a formal charter adopted by the Board of Directors, a copy of which is available on the Company's website at www.cortexpharm.com.

Governance and Nominations Committee. The functions of the Governance and Nominations Committee include, without limitation, (i) identifying individuals qualified to become members of the Board of Directors, (ii) recommending director nominees for the next annual meeting of stockholders and to fill vacancies that may be created by the expansion of the number of directors serving on the Board of Directors and by resignation, retirement or other termination of services of incumbent directors, (iii) developing and recommending to the Board of Directors corporate governance guidelines and changes thereto, (iv) ensuring that the Board of Directors and the Company's Certificate of Incorporation and Bylaws are structured in a way that best serves the Company's practices and objectives, (v) leading the Board of Directors in its annual review of the Board of Directors' performance; and (vi) recommending to the Board of Directors nominees for each committee. Accordingly, the Governance and Nominations Committee annually reviews the composition of the Board of Directors as a whole and makes recommendations, if deemed necessary, to enhance the composition of the Board of Directors. The Governance and Nominations Committee first considers a candidate's management experience and then considers issues of judgment, background, conflicts of interest, integrity, ethics and commitment to the goal of maximizing stockholder value when considering director candidates. The Governance and Nominations Committee also focuses on issues of diversity, such as diversity of gender, race and national origin, education, professional experience and differences in viewpoints and skills. The Governance and Nominations Committee does not have a formal policy with respect to diversity; however, the Board of Directors and Governance and Nominations Committee believe that it is essential that the members of the Board of Directors represent diverse viewpoints. In considering candidates for the Board of Directors, the Governance and Nominations Committee considers the entirety of each candidate's credentials in the context of these standards. With respect to the nomination of continuing directors for re-election, the individual's contributions to the Board are also considered.

The Governance and Nominations Committee is comprised of Dr. Drake, as Chairman of the Committee, Mr. Allnutt and Mr. Benedik. None of Dr. Drake, Mr. Allnutt, or Mr. Benedik is or has been an officer or employee of the Company and in all other respects each meets the qualifications of an “independent director” under Section 803 of the NYSE Amex Company Guide. The Governance and Nominations Committee held one (1) meeting with the Board of Directors during the fiscal year ended December 31, 2009. The Governance and Nominations Committee operates under a formal charter, a copy of which is available on the Company’s website at www.cortexpharm.com. The processes of the Governance and Nominations Committee are summarized below.

Director Nominating Process. In identifying potential nominees, the Governance and Nominations Committee will seek recommendations from existing directors and from management. In addition, the Governance and Nominations Committee will consider candidates that may be recommended by the Company’s stockholders in accordance with the procedures described below. In considering the nominees, the Board of Directors will consider, among other factors, the potential nominee’s character and integrity, independence, experience and knowledge, and willingness and ability to participate in the Board of Directors’ activities. Additionally, the Board of Directors may consider specialized areas of expertise of candidates that may assist the Board of Directors in its oversight responsibility of the Company. The Board of Directors does not evaluate nominees recommended by stockholders differently from its evaluation of other director nominees.

The Governance and Nominations Committee screens the candidates, does reference checks, prepares a biography for each candidate for the Board of Directors to review and conducts interviews. Members of the Board of Directors, including the Company’s Chief Executive Officer, interview candidates that meet the criteria and the Board of Directors, with the approval of a majority of the “independent directors” (as defined under Section 803 of the NYSE Amex Company Guide), selects nominees best suited to serve on the Board of Directors.

Stockholder Recommendations of Board Candidates. The Governance and Nominations Committee will consider director candidates recommended by the Company’s stockholders. Any stockholder desiring to submit a recommendation for consideration Governance and Nominations Committee of a candidate that such stockholder believes is qualified to be a director nominee at any upcoming stockholder meeting may do so by submitting that recommendation in writing to the Governance and Nominations Committee, c/o Chief Financial Officer, Cortex Pharmaceuticals, Inc., 15231 Barranca Parkway, Irvine, California 92618, not later than 120 days prior to the first anniversary of the date on which the proxy materials for the prior year’s annual meeting were first sent to the Company’s stockholders. No director nominations by stockholders have been received as of the filing of this proxy statement.

The recommendation should be accompanied by the following information: (i) the name and address of the nominating stockholder and the recommended potential nominee; (ii) a representation that the stockholder is a holder of record of the Company’s common stock entitled to vote in the election of the Company’s directors, together with information as to the number of shares that are owned by the nominating stockholder, his or her recommended candidate and any other stockholders known by the nominating stockholder to be supporting the candidate’s nomination; (iii) a description of any arrangements or understandings, relating to the election of the Company’s directors, that may exist between the nominating stockholder, or any person that controls, or is controlled by, or is under common control with, such stockholder, and any other person or persons (naming such person or person); (iv) such other information regarding each such candidate as would be required to be included in a proxy statement filed

pursuant to the proxy rules of the Securities and Exchange Commission; and (v) the written consent of each such recommended candidate to be named as a nominee and, if nominated by the Board of Directors and elected, to serve as a director.

Research and Development Committee. The functions of the Research and Development Committee include, without limitation, assisting the Board of Directors in reviewing and evaluating the Company's research and development strategies, policies and decisions. From January 2009 through March 2009, the Research and Development Committee was comprised of Dr. Cotman, as Chairman of the Committee and Drs. Johnson, Tollefson (who passed away in March 2009) and Varney. Beginning in April 2009, the Research and Development Committee was comprised of Dr. Cotman, as Chairman of the Committee and Drs. Johnson and Varney. The Research and Development Committee operates under a formal charter, a copy of which is available on the Company's website at www.cortexpharm.com.

Risk Management

The Board of Directors has an active role, as a whole and also at the committee level, in overseeing management of the Company's risks. The Board of Directors regularly reviews information regarding the Company's credit, liquidity and operations, as well as the risks associated with each. The Company's Audit Committee takes primary responsibility for overseeing the overall risk management of the Company. However, the Compensation Committee also has responsibilities relating to the Company's executive compensation plans and arrangements, as does the Nominations and Governance Committee for risks associated with the independence of the Board of Directors and potential conflicts of interest. While each Committee is responsible for evaluating certain risks and overseeing management of such risks, the Audit Committee provides the Company the overall risk assessments and in that capacity assures that the entire Board of Directors is regularly informed through Committee reports of such risks.

Attendance at Meetings

During the fiscal year ended December 31, 2009, the Board of Directors held a total of eleven (11) meetings. No member of the Board of Directors attended fewer than 75% of the aggregate number of meetings of the Board of Directors and of the committees of which he was a member during the foregoing period.

Compensation Committee Interlocks and Insider Participation

For the fiscal year ended December 31, 2009, members of the Company's Compensation Committee consisted of Dr. Johnson, Mr. Allnutt, and Mr. Casamento, none of whom has previously served or currently serves as an executive officer or employee of the Company or any of its subsidiaries. The Company is not aware of any "compensation committee interlocks" that existed during the fiscal year ended December 31, 2009.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Overview of Compensation Program. The individuals who served as the Company's Chief Executive Officer and Chief Financial Officer during the year ended December 31, 2009, as well as the other individuals included in the Summary Compensation Table on page 20, are referred to as the "named executive officers."

The Compensation Committee of the Board has responsibility for establishing, implementing and monitoring adherence with the Company's compensation philosophy. The Compensation Committee ensures that the total compensation paid to the named executive officers is fair, reasonable and competitive.

Compensation Philosophy and Objectives. The Compensation Committee believes that the most effective executive compensation program is one that is designed to reward the achievement of specific annual, long-term and strategic goals by the Company, and which aligns executives' interests with those of the stockholders by rewarding performance above established goals, with the ultimate objective of improving stockholder value. The Compensation Committee evaluates both performance and compensation to ensure that the Company maintains its ability to attract and retain superior employees in key positions and that compensation provided to key employees remains competitive relative to the compensation paid to similarly situated executives of its peer companies. To that end, the Compensation Committee believes executive compensation packages provided by the Company to its executives, including the named executive officers, should include both cash and stock-based compensation that reward performance as measured against established goals.

Role of Executive Officers in Compensation Decisions. The Compensation Committee makes all compensation decisions for the named executive officers and approves recommendations regarding non-equity and equity awards to all elected officers of the Company. The Chief Executive Officer annually reviews the performance of each member of the named executive officers (other than the Chief Executive Officer, whose performance is reviewed by the Compensation Committee). The conclusions reached and recommendations based on these reviews, including with respect to salary adjustments and annual award amounts, are presented to the Compensation Committee, who can exercise its discretion in modifying any recommended adjustments or awards to executives.

Setting Executive Compensation. Based on the foregoing objectives, the Compensation Committee has structured the Company's annual and long-term incentive-based cash and non-cash executive compensation to motivate executives to achieve the business goals set by the Company and reward the executives for achieving such goals. In furtherance of this, the Compensation Committee may utilize outside consultants on an as needed basis.

On an annual basis, the Compensation Committee reviews the objectives for each named executive officer, as compiled individually by each named executive officer with the Chief Executive Officer. The recommendations of the Compensation Committee are included in the finalized performance objectives for each named executive officer for the coming year. At the end of the year, the Compensation Committee reviews the performance of each named executive officer in achieving the established objectives. These results are included with the overall performance review provided by the Chief Executive Officer, after which the Compensation Committee votes upon any recommendations for salary adjustments, stock option grants and cash incentives. The Chief Executive Officer then executes the actions recommended by the Compensation Committee with respect to such matters.

A significant percentage of total compensation is allocated to incentives as a result of the philosophy mentioned above. There is no pre-established policy or target for the allocation between either cash and non-cash or short-term and long-term incentive compensation. Rather, the Compensation Committee reviews information provided by the mentioned salary surveys to determine the appropriate level and mix of incentive compensation. Income from such incentive compensation is realized as a result of the performance of the Company or the individual, depending on the type of award, compared to established goals.

2009 Executive Compensation Components

For the fiscal year ended December 31, 2009, the principal components of compensation for named executive officers were: (i) base salary; (ii) long-term stock-based incentive awards that strengthen the mutuality of interests between the named executive officers and the Company's stockholders; and (iii) perquisites and other personal benefits.

Base Salary

The Company provides named executive officers and other employees with base salary to compensate them for services rendered during the fiscal year. The base salary levels for the named executive officers were recommended by the Compensation Committee and established by the Board of Directors for the fiscal year ended December 31, 2009 in accordance with the terms of their employment arrangements with the Company (with respect to Dr. Roger G. Stoll, Dr. Mark A. Varney, Dr. Pierre V. Trân and Mr. James H. Coleman, see "Employment and Consulting Agreements"), if applicable, as well as on the basis of the following factors: personal performance, the estimated salary levels in effect for similar positions (as defined by salary surveys comprising companies of similar size within the pharmaceutical/biotech fields with which the Company competes for executive talent), and internal comparability considerations.

Salary levels are typically considered annually as part of the Company's performance review process as well as upon a promotion or other change in job responsibility. Merit based increases to salaries of named executive officers are based on the Compensation Committee's assessment of the individual's performance.

Annual Incentive Compensation

The Compensation Committee, in consultation with the Chief Executive Officer (except where the Chief Executive Officer's compensation is being determined), may award annual incentives based upon performance targets to named executive officers and other employees. The Compensation Committee may also award bonuses in cases where such performance targets are not met if it determines that the circumstances warrant such action. For the fiscal year ended December 31, 2009, the performance targets for the named executive officers included, but were not limited to, making clinical progress with the Company's AMPAKINE® technology, securing additional finances and operating within established financial expectations. The weight given to each factor varied from individual to individual. Additionally, each named executive officer has a discretionary portion of the annual incentive linked to achievement of non-financial goals, which differ depending upon the responsibilities of the named executive officer in question.

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 the performance of the Company, as well as that of the individual named executive officer, as compared to established goals. For the years ended December 31, 2007, 2008 and 2009, no performance bonuses were awarded to the named executive officers.

Long-Term Incentive Compensation

The 2006 Stock Incentive Plan was approved by the Company's stockholders at the 2006 Annual Meeting of Stockholders and is the successor plan to the 1996 Stock Incentive Plan, which expired on

October 25, 2006. Under the 2006 Stock Incentive Plan, the Compensation Committee may award incentive stock options, nonqualified stock options, restricted stock grants, stock payment awards, stock appreciation rights, restricted stock units and dividend equivalents. The 2006 Stock Incentive Plan provides the Compensation Committee with the ability to align the interests of the named executive officers with those of the stockholders and provide each individual with a significant incentive to manage the Company from the perspective of an owner with an equity stake in the business. The number of shares subject to each award is based upon the named executive officer's tenure, level of responsibility and relative position in the Company. During the fiscal year ended December 31, 2009, stock options totaling 2,799,000 shares were granted to employees under the 2006 Stock Incentive Plan. Of the 2,799,000 stock options granted under the 2006 Stock Incentive Plan, 1,856,000 were granted as long-term incentive compensation to the named executive officers.

The exercise price for the stock options is no less than the fair market value of the stock on the date of the grant. Options generally 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 with the Company. Accordingly, the option will provide a return to the named executive officer only if he or she remains in the Company's employment and the market price of the Company's common stock appreciates over the option term.

Annual awards of stock options to named executive officers are made at the discretion of the Compensation Committee. Newly-hired named executive officers receive their award of stock options on their first date of employment, as approved in advance by the Compensation Committee.

Ownership Guidelines

To better align the interests of the Company's named executive officers with those of its stockholders, to create ownership focus and to build long-term commitment, the Company has adopted a common stock ownership policy for its named executive officers. The policy requires named executive officers to acquire and maintain ownership of at least 30,000 shares of the Company's 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.

Perquisites and Other Personal Benefits

The Company provides named executive officers with perquisites and other personal benefits that the Compensation Committee believes are reasonable and consistent with its overall compensation program to better enable the Company to attract and retain superior employees for key positions. The Compensation Committee periodically reviews the levels of perquisites and other personal benefits provided to named executive officers.

Upon relocation, named executive officers may receive, at the discretion of the Compensation Committee, a relocation allowance and a mortgage interest subsidy, whereby the Company will pay a specified percentage of the principal amount of a mortgage on a named executive officer's primary residence during a specified period of time, subject to continued employment of the named executive officer by the Company.

Attributed costs of the perquisites and other personal benefits described above for the named executive officers for the fiscal year ended December 31, 2009, are included in the column titled, “All Other Compensation” of the “Summary Compensation Table” on page 20.

The Company has entered into severance agreements with certain key employees, including the named executive officers. In March 2009, the Company also entered into retention agreements with certain key employees including the named executive officers, as described under the heading “CERTAIN TRANSACTIONS” on page 33. The severance agreements and the retention agreements are designed to promote stability and continuity of senior management. Information regarding applicable payments under severance agreements for each of the named executive officers is provided under the headings “Potential Payments Upon Termination or Change-in-Control” and “Employment and Consulting Agreements” on pages 25 and 28, respectively.

Tax and Accounting Implications

Deductibility of Executive Compensation. The Compensation Committee has reviewed the Company’s executive compensation plans to determine if revisions may be necessary due to provisions of Section 162(m) of the Internal Revenue Code, which generally disallows a tax deduction to public corporations for compensation paid to any of the Company’s executive officers in excess of \$1,000,000 during any fiscal year. It is the current policy of the Compensation Committee to preserve, to the extent reasonably possible, the Company’s ability to obtain a corporate tax deduction for compensation paid to executive officers of the Company to the extent consistent with the best interests of the Company and its stockholders.

Nonqualified Deferred Compensation. On October 22, 2004, the American Jobs Creation Act of 2004 was signed into law, changing the tax rules applicable to nonqualified deferred compensation arrangements. Compliance with the final regulations is not yet required, if, as is the case, the Company has operated all of its compensation plans, programs and other arrangements on the basis of a reasonable, good faith interpretation of the statutory provisions and the official guidance published by the Internal Revenue Service since January 1, 2005.

Accounting for Stock-Based Compensation. Commencing on January 1, 2006, the Company began accounting for stock-based payments, including its 2006 Stock Incentive Plan, in accordance with the requirements of FASB Accounting Standards Codification 718.

COMPENSATION COMMITTEE REPORT

The Compensation Committee of the Company has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management and, based on such review and discussions, the Compensation Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this proxy statement.

THE COMPENSATION COMMITTEE

M. Ross Johnson, Chairman
Robert F. Allnutt
Charles J. Casamento

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, 2009, 2008 and 2007. Other than the hiring bonuses incurred in 2007 in connection with the addition of the Company's Chief Medical Officer, Dr. Pierre Trân, the named executive officers did not earn any cash bonus payments during the fiscal years ended December 31, 2009, 2008 or 2007. The information under the heading, "Stock Awards" for all applicable named executive officers includes the fair market value of shares of the Company's 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.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)(1)	Option Awards (\$)(2)	All Other Compensation (\$)(3)	Total (\$)
Roger G. Stoll, Ph.D. Executive Chairman	2009	\$305,250	—	—	\$ 93,552	—	\$398,802
	2008	\$370,000	—	—	\$ 87,280	—	\$457,280
	2007	\$350,000	—	—	\$ —	\$37,168 (4)	\$387,168
Mark A. Varney, Ph.D. President and Chief Executive Officer	2009	\$298,650	—	—	\$ 97,706	\$68,800 (5)	\$465,156
	2008	\$347,277	—	—	\$241,933	\$88,000 (6)	\$677,210
	2007	\$318,000	—	—	\$ —	\$147,545 (7)	\$465,545
Pierre V. Trân, M.D., M.M.M. (8) Chief Medical Officer and Vice President of Clinical Development	2009	\$251,625	—	—	\$ 8,308	\$68,400 (10)	\$328,333
	2008	\$305,000	—	—	\$ 21,820	\$86,400 (10)	\$413,220
	2007	\$ 63,542	\$80,000 (9)	—	\$390,694	\$18,000 (10)	\$552,236
Maria S. Messinger, CPA Vice President, Chief Financial Officer and Corporate Secretary	2009	\$200,475	—	—	\$ 63,143	—	\$263,618
	2008	\$243,000	—	\$14,870	\$ 43,640	—	\$301,510
	2007	\$225,000	—	—	\$ —	—	\$225,000
James H. Coleman Senior Vice President, Business Development	2009	\$206,250	—	—	\$ 45,696	\$9,279 (11)	\$261,225
	2008	\$250,000	—	\$ 5,464	\$ 43,640	\$9,280 (11)	\$308,384
	2007	\$240,000	—	—	\$ —	\$9,280 (11)	\$249,280

- (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 the Company's common on the NYSE Amex of \$0.78 on such date and rounded to the nearest whole share. In connection with the transaction, Ms. Messinger and Mr. Coleman received 19,064 and 7,005 shares of the Company's common stock, respectively. The shares of the Company's common stock were issued under the Company's 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 the Company's audited financial statements for the fiscal year ended December 31, 2009, included in the Company's Annual Report on Form 10-K, filed with the Securities and Exchange Commission on April 8, 2010.
- (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) Amount represents reimbursement of certain of Dr. Stoll's deferred moving expenses.

- (5) Represents payments by the Company 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 28.
- (6) Represents payments by the Company 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 28.
- (7) Represents payments by the Company to Dr. Varney under the terms of his employment agreement and related to Dr. Varney’s relocation to southern California, including \$61,000 for a mortgage subsidy, subject to and also including a gross-up of \$36,600, to cover his additional income tax liabilities, and \$49,945 to reimburse certain costs related to the sale of his former residence. See “Employment and Consulting Agreements” on page 28.
- (8) Dr. Trân was named Chief Medical Officer and Vice President of Clinical Development in October 2007.
- (9) Represents payment by the Company to Dr. Trân under his employment agreement to compensate him for his lost bonus opportunity as a result of his departure from his prior employer in order to join the Company in October 2007. See “Employment and Consulting Agreements” on page 28.
- (10) Represents amounts paid by the Company to Dr. Trân under his employment agreement for his temporary housing in connection with his relocation to southern California, which amounts were subject to and include a gross-up of approximately \$25,650, \$32,400 and \$6,750 for the years ended December 31, 2009, 2008 and 2007, respectively, to cover related income tax liabilities. See “Employment and Consulting Agreements” on page 28.
- (11) Represents premiums for life insurance for Mr. Coleman, in lieu of participation in the Company’s medical benefit plans.

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, 2009, 2008 and 2007. 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. Executive Chairman	2009	\$305,250	\$ 93,552	\$398,802
	2008	\$370,000	\$ 87,280	\$457,280
	2007	\$387,168	\$ —	\$387,168
Mark A. Varney, Ph.D. President and Chief Executive Officer	2009	\$367,450	\$ 97,706	\$465,156
	2008	\$435,277	\$241,933	\$677,210
	2007	\$465,545	\$ —	\$465,545
Pierre V. Trân, M.D., M.M.M. Chief Medical Officer and Vice President of Clinical Development	2009	\$320,025	\$ 8,308	\$328,333
	2008	\$391,400	\$ 21,820	\$413,220
	2007	\$161,542	\$390,694	\$552,236
Maria S. Messinger, CPA Vice President, Chief Financial Officer and Corporate Secretary	2009	\$200,475	\$ 63,143	\$263,618
	2008	\$243,000	\$ 58,510	\$301,510
	2007	\$225,000	\$ —	\$225,000
James H. Coleman Senior Vice President, Business Development	2009	\$215,529	\$ 45,696	\$261,225
	2008	\$259,280	\$ 49,104	\$308,384
	2007	\$249,280	\$ —	\$249,280

GRANTS OF PLAN BASED AWARDS

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards(1)			All Other Stock Awards: Number of Shares of Stock or Units (#)(2)	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.	08/22/2009	—	—	—	—	563,000	\$0.20	\$93,552
	N/A	—	\$74,000	\$74,000	—	—	—	N/A
Mark A. Varney, Ph.D.	08/22/2009	—	—	—	—	588,000	\$0.20	\$97,706
	N/A	—	\$72,400	\$72,400	—	—	—	N/A
Pierre V. Tran, M.D., M.M.M.	08/22/2009	—	—	—	—	50,000	\$0.20	\$8,308
	N/A	—	\$61,000	\$91,500	—	—	—	N/A
Maria S. Messinger, CPA	08/22/2009	—	—	—	—	380,000	\$0.20	\$63,143
	N/A	—	\$48,600	\$48,600	—	—	—	N/A
James H. Coleman	08/22/2009	—	—	—	—	275,000	\$0.20	\$45,696
	N/A	—	\$50,000	\$125,000	—	—	—	N/A

- (1) The amounts shown reflect the target and maximum amounts based on an 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.

Narrative to Summary Compensation Table and Grants of Plan Based Awards

See "Compensation Discussion and Analysis" and "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.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END

There were no outstanding unvested stock awards as of December 31, 2009. The table below relates solely to outstanding option awards as of December 31, 2009. 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:	Option Exercise Price	Option Expiration Date
			Number of Securities Underlying Unexercised Unearned Options (#)		
Roger G. Stoll, Ph.D.	—	563,000	—	\$0.20	08/22/2019
	66,667	133,333	—	\$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.	—	588,000	—	\$0.20	08/22/2019
	66,667	133,333	—	\$0.97	08/13/2018
	66,667	133,333	—	\$0.54	01/18/2018
	250,000	—	—	\$1.30	12/18/2016
	750,000 (5)	—	—	\$2.95	01/30/2016
Pierre V. Trân, M.D., M.M.M.	—	50,000	—	\$0.20	08/22/2019
	16,667	33,333	—	\$0.54	01/18/2018
	497,916 (6)	252,084	—	\$0.66	10/16/2017
Maria S. Messinger, CPA	—	380,000	—	\$0.20	08/22/2019
	33,334	66,666	—	\$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	

James H. Coleman	—	275,000	—	\$0.20	08/22/2019
	33,334	66,666	—	\$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 (7)	—	—	\$0.80	02/11/2013
	100,000	—	—	\$0.75	12/16/2012
	50,000	—	—	\$2.11	10/09/2011
	125,000	—	—	\$3.02	05/17/2010
	50,000	—	—	\$3.02	05/10/2010

- (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 reinstated 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) In connection with his employment, Dr. Tr an was granted options to purchase 750,000 shares of common stock at an exercise price of \$0.66 per share, representing the closing price of the Company's common stock on the date of grant. Of the 750,000 options granted, 200,000 options vested upon his first date of employment on October 16, 2007 and 550,000 options shall vest in equal monthly installments over a four-year period from the date of grant.
- (7) 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.

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, 2009.

POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE-IN-CONTROL

The table below reflects the amount of compensation payable to each of the named executive officers of the Company in the event of termination of each named executive officer's employment. The amount of compensation payable to each named executive officer in the event of death or disability, for cause termination, voluntary termination, termination without cause or for good reason, and termination following a change of control is shown below. The amounts shown assume such termination was effective as of December 31, 2009, and thus include amounts earned through such time and are estimates of the amounts that would be paid out to the named executive officers upon their termination. However, the actual amounts to be paid out can only be determined at the time of such named executive officer's separation from the Company. The named executive officers have each entered into employment agreements and/or severance agreements governing such payments. See "Employment and Consulting Agreements" on page 28. 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 "CERTAIN TRANSACTIONS" on page 33.

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 the Company's 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 the Company 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 the Company's disability plan or payments under the Company's 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 the Company is 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. Trân within six (6) months following, a change of control without cause or for good reason (other than Dr. Trân 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. Trân 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.

The following tables show the potential payments upon termination due to death or disability, for cause, voluntary, without cause, for good reason or in connection with a change-in-control of the Company for each of the named executive officers. For purposes of disclosures, the table assumes that the termination occurred as of December 31, 2009. Except for Dr. Stoll's, Dr. Varney's and Mr. Coleman's base salary benefits and all named executive officers' health care and disability benefits, as applicable, which are payable monthly, all amounts below are payable in a lump sum.

Name	Executive Benefits and Payments Upon Termination	Death or Disability	Termination for Cause	Voluntary Termination	Termination Or For Good Reason	Termination Without Cause Or For Good Reason	Termination Without Cause or For Good Reason in Connection With Change-in-Control
Roger G. Stoll, Ph.D.	Base Salary	\$ 247,500 (1)	—	—	\$ 370,000	\$ 555,000 (2)	
	Accrued Vacation Pay	\$ 71,154	\$71,154	\$71,154	\$ 71,154	\$ 71,154	
	Stock Options Accelerated	—	—	—	—	(3) — (3)	
	Health Care	—	—	—	—	—	
	Disability Income	\$ 207,951 (4)	—	—	—	—	
	Life Insurance Benefits	\$ 385,450 (5)	—	—	—	—	
Mark A. Varney, Ph.D.	Base Salary	\$ 239,500 (6)	—	—	\$ 367,450	\$ 543,000 (2)	
	Accrued Vacation Pay	\$ 40,283	\$40,283	\$40,283	\$ 40,283	\$ 40,283	
	Stock Options Accelerated	—	—	—	—	— (3)	
	Health Care	—	—	—	—	—	
	Disability Income	\$1,983,994 (7)	—	—	—	—	
	Life Insurance Benefits	\$ 580,000 (5)	—	—	—	—	
Pierre V. Trân, M.D., M.M.M.	Base Salary	—	—	—	—	\$ 457,500 (2)(8)	
	Accrued Vacation Pay	\$ 31,348	\$31,348	\$31,348	\$ 31,348	\$ 31,348	
	Stock Options Accelerated	—	—	—	—	— (3) (8)	
	Health Care	—	—	—	—	\$ 18,845 (8) (9)	
	Disability Income	\$1,569,310 (7)	—	—	—	—	
	Life Insurance Benefits	\$ 489,000 (5)	—	—	—	—	
Maria S. Messinger	Base Salary	—	—	—	\$243,000	\$ 364,500 (2)	
	Accrued Vacation Pay	\$ 46,731	\$46,731	\$46,731	\$ 46,731	\$ 46,731	
	Stock Options Accelerated	—	—	—	—	— (3)	
	Health Care	—	—	—	\$ 18,668 (9)	\$ 18,668 (9)	
	Disability Income	\$2,039,587 (7)	—	—	—	—	
	Life Insurance Benefits	\$ 389,000 (5)	—	—	—	—	
James H. Coleman	Base Salary	\$ 127,500 (1)	—	—	\$ 250,000	\$375,000 (2)	
	Accrued Vacation Pay	\$ 48,077	\$48,077	\$48,077	\$ 48,077	\$ 48,077	
	Stock Options Accelerated	—	—	—	—	— (3)	
	Health Care	—	—	—	—	—	
	Disability Income	\$ 179,299 (4)	—	—	—	—	
	Life Insurance Benefits	\$ 260,650 (5)	—	—	—	—	

- (1) In connection with the terms of the related employment agreement with the named executive officer, represents the difference between the value of any disability insurance proceeds for a twelve (12) month period and twelve (12) months of the named executive officer's then current salary.
- (2) In March 2009, each of the named executive officers entered into retention agreements to foster the continued 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 of the Company and termination of the executive without cause or for good reason, subject to certain circumstances. The potential payments under the retention agreements are in addition to payments to the named executive officers under existing employment and severance agreements, the aggregate amount of which is reflected in the table above. See "CERTAIN TRANSACTIONS" on page 33.
- (3) The value of accelerated vesting of options was estimated under the intrinsic value method. The closing price of the Company's common stock on December 31, 2009 was compared to the exercise prices to determine the spread for each option, and the spread was applied to "in-the-money" options that were unvested as of December 31, 2009. For the purpose of this calculation, the Company used \$0.10, which was the closing sale price per share of the Company's common stock as quoted on the OTCBB on the last business day of the fiscal year. If the

- Company is 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).
- (4) Reflects the estimated present value of all future payments that the named executive officer would be entitled to receive under the Company's disability program.
 - (5) Reflects the estimated present value of the proceeds payable to the named executive officer's beneficiaries upon his or her death.
 - (6) In connection with the terms of the related employment agreement with the named executive officer, represents the difference between any disability insurance proceeds for a twelve (12) month period and twelve (12) months of the named executive officer's base salary, based upon the average monthly base salary for the twelve (12) months immediately preceding the disability event.
 - (7) Reflects the estimated present value of all future payments that the named executive officer would be entitled to receive under the Company's disability program. The named executive officer would be entitled to receive such benefits until he or she reaches normal retirement age, as determined by the 1983 Amended Social Security Normal Retirement Age.
 - (8) Includes benefits in the event of termination of employment by the Company without cause in connection with, or within six (6) months following a change of control. Benefits do not apply in the event of termination of employment by the named executive officer for good reason.
 - (9) Reflects the estimated present value of the cost of coverage for future premiums that will be paid on behalf of the named executive officer under the Company's health and welfare plans.

Employment and Consulting Agreements

Roger G. Stoll, Ph.D. has served as a director of the Company since April 2002 and became Chairman, President and Chief Executive Officer of the Company in August 2002. In August 2008, Dr. Stoll became the Executive Chairman of the Company and Dr. Varney became the 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 and another one-year term expiring in August 2010. As of December 31, 2009, his employment called for a base salary of \$296,000 per year, as adjusted for the 20% reduction implemented in March 2009 for all of the Company's executive officers in an effort to conserve the Company's financial resources. Dr. Stoll's base salary is subject to annual review by the Compensation Committee of the Board of Directors. 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 the Company's agreement with its 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, upon a change-in-control of the Company, all unvested options then held by Dr. Stoll shall be subject to accelerated vesting.

Mark A. Varney, Ph.D. joined the Company 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, calls for a base salary of \$289,600 per year as of December 31, 2009, as adjusted for the 20% reduction implemented in March 2009 for all of the Company's executive officers in an effort to conserve the Company's financial resources. Dr. Varney's employment agreement includes an annual bonus, at the discretion of the Board of Directors of the Company. 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, the Company will provide Dr. Varney with a mortgage subsidy over five years, terminating on the earlier of the date of his termination of employment or August 2011, in the form of a monthly payment, whereby the Company 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 of a change-in-control of the Company, any unvested options then held by Dr. Varney shall be subject to accelerated vesting.

Pierre V. Trân, M.D., M.M.M. joined the Company as Chief Medical Officer and Vice President, Clinical Development in October 2007. His employment letter is terminable at will by the Company or Dr. Trân and as of December 31, 2009 called for a base salary of \$244,000 per year, as adjusted for the 20% reduction implemented in March 2009 for all of the Company's executive officers in an effort to conserve the Company's financial resources. Dr. Trân's employment letter includes an annual bonus, at the discretion of the Board of Directors of the Company, of up to 30% of his base salary. In connection with his employment, Dr. Trân was granted options to purchase 750,000 shares of common stock at an exercise price of \$0.66 per share, representing 100% of the fair market value as of the date of grant. The options have a ten-year term and vest according to the following schedule: 200,000 upon the date of employment and 550,000 in equal monthly installments over a four-year period. Pursuant to the terms of the employment letter, the Company will provide Dr. Trân with a mortgage subsidy over four years in the form of a monthly payment, whereby the Company will pay 5% of the principal amount of the mortgage (which principal amount shall not to exceed \$600,000) during the first year, which amount declines by 1% each year thereafter, and which amount is grossed up to cover Dr. Trân's additional income tax liabilities. In addition to the foregoing, the Company made a one-time payment to Dr. Trân of \$80,000 to cover a lost bonus opportunity from his previous employer. Dr. Trân also will receive temporary housing and reimbursement of real estate closing fees, sales commissions and moving costs. In the event of termination of Dr. Trân's employment without cause in connection with or within six (6) months following a change-in-control of the

Company, under certain circumstances he is entitled to receive compensation of twelve (12) months of his then current salary plus continued employee benefits for a period of twelve (12) months thereafter. In addition, in the event of a change-in-control of the Company any unvested options then held by Dr. Trần shall be subject to accelerated vesting.

Maria S. Messinger joined the Company 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, 2009 was \$194,400, as adjusted for the 20% reduction implemented in March 2009 for all of the Company's executive officers in an effort to conserve the Company's financial resources. Ms. Messinger's severance agreement also includes a pro-rated bonus (if applicable) and continued employee benefits for a period of twelve (12) months thereafter. Additionally, in the event of a change-in-control of the Company, any unvested options then held by Ms. Messinger shall be subject to accelerated vesting.

James H. Coleman joined the Company as Senior Vice President, Business Development in May 2000. His employment agreement, as amended to date, provides a base salary of \$200,000 per year as of December 31, 2009, as adjusted for the 20% reduction implemented in March 2009 for all of the Company's executive officers in an effort to conserve the Company's financial resources. 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 the Compensation Committee of the Board of Directors of the Company. 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 have 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 the Company 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 a change-in-control of the Company, under certain circumstances he is entitled to receive compensation of twelve (12) months of his then current salary, which as of December 31, 2009 was \$176,800 per year, as adjusted for the 20% reduction implemented in March 2009 for all of the Company's executive officers in an effort to conserve the Company's financial resources. Dr. Johnson's severance agreement also provides continued employee benefits for a period of twelve (12) months thereafter. In addition, in the event of a change-in-control of the Company, any unvested options then held by Dr. Johnson shall be subject to accelerated vesting.

Drs. Carl W. Cotman and Gary S. Lynch (both of whom are co-founders and Scientific Directors of the Company) each previously entered into a consulting agreement with the Company. During the year ended December 31, 2009, the Company recorded related consulting fees of approximately \$19,000 for Dr. Cotman, whose consulting agreement commenced in November 1987 and was terminated as of October 31, 2009 in an effort to conserve the Company's financial resources. Under the consulting agreement with Dr.

Lynch, the Company recorded consulting fees of approximately \$53,000 during the year ended December 31, 2009 and 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 the Company for consulting and advisory services for an average of three days per month.

Dr. Gary D. Tollefson entered into a consulting agreement with the Company pursuant to which he received a retainer of \$6,000 per month. The consulting agreement obligated Dr. Tollefson to be available for up to two eight-hour work days per month at such times and places reasonably agreed to between the parties. The term of his consulting agreement commenced in mid-April 2004 and continued until his death in March 2009. In connection with his engagement as a consultant, in May 2004 Dr. Tollefson was granted options to purchase 150,000 shares of common stock at an exercise price of \$2.20 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 have a ten-year term.

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 the Company as well as the skill-level required by the Company 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 the Company's 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 the Company 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 the Company's financial resources.

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 the Company's financial resources.

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. During the year ended December 31, 2009, these automatic grants to non-employee directors were delayed and granted in June 2009, following stockholder approval of the increase in authorized shares available under the Company's 2006 Stock Incentive Plan. Non-employee directors were granted options to purchase an additional 30,000 shares of common stock in August 2009. 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 the Company. Compensation for such non-employee directors, if appropriate, is determined separately. As of December 31, 2009, none of the Company's 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, 2009. Directors who are also employees of the Company 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	\$21,000	\$12,202 (3)	—	\$33,202
John F. Benedik, CPA	\$30,000	\$12,202 (4)	—	\$42,202
Charles J. Casamento	\$23,000	\$12,202 (5)	—	\$35,202
Carl W. Cotman, Ph.D.	\$18,000	\$12,202 (6)	\$19,167	\$49,369
Peter F. Drake, Ph.D.	\$18,000	\$12,202 (7)	—	\$30,202
M. Ross Johnson, Ph.D.	\$22,000	\$12,202 (8)	—	\$34,202
Gary D. Tollefson, M.D., Ph.D.	\$6,000	— (9)	\$18,000	\$24,000

- (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 are included in footnote 1 to the Company's audited financial statements for the fiscal year ended December 31, 2009, included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission on April 8, 2010.
- (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 the Company.
- (3) Mr. Allnutt had an aggregate of 280,000 option awards outstanding as of December 31, 2009.
- (4) Mr. Benedik had an aggregate of 145,000 option awards outstanding as of December 31, 2009.
- (5) Mr. Casamento had an aggregate of 295,000 option awards outstanding as of December 31, 2009.
- (6) Dr. Cotman had an aggregate of 260,000 option awards outstanding as of December 31, 2009.
- (7) Dr. Drake had an aggregate of 220,000 option awards outstanding as of December 31, 2009.
- (8) Dr. Johnson had an aggregate of 290,000 option awards outstanding as of December 31, 2009.
- (9) Dr. Tollefson had an aggregate of 256,667 option awards outstanding as of December 31, 2009.

Report of the Audit Committee of the Board of Directors

The Audit Committee has reviewed and discussed the audited financial statements of the Company for the fiscal year ended December 31, 2009 with management, including a discussion of the quality, not just the acceptability of the accounting principles, the reasonableness of significant judgments and the clarity of disclosures in the financial statements. The Audit Committee also has discussed with Haskell & White LLP, the Company's independent registered public accountants for the fiscal year ended December

31, 2009, the matters required to be discussed by the Statement on Auditing Standards No. 61 (Communications with Audit Committee), as amended. In addition, the Audit Committee has received the written disclosures and the letter from Haskell & White LLP as required by the Independence Standards Board Standard No. 1 (Independence Discussions with Audit Committees) and the Audit Committee has discussed the independence of Haskell & White LLP with that firm.

Based on the Audit Committee's review of the matters noted above and its discussions with the Company's independent registered public accountants and the Company's management, the Audit Committee recommended to the Board of Directors that the Company's financial statements be included in the Company's Annual Report on Form 10-K.

Respectfully Submitted,

John F. Benedik, Chairman
Charles J. Casamento
Peter F. Drake

Notwithstanding anything to the contrary set forth in the Company's previous filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, that might incorporate future filings, including this proxy statement, in whole or in part, the Compensation Committee Report and the Report of the Audit Committee of the Board of Directors shall not be incorporated by reference into any such filings.

CERTAIN 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.

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, 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 the Company's 2006 Stock Incentive Plan, occurs and the executive remains continuously employed with the Company, the successor to the Company 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 (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, 2008, would be as follows: Dr. Stoll - \$185,000, Dr. Varney - \$181,000, Dr. Tran - \$152,500, 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 Company 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.

Review, Approval or Ratification of Transactions with Related Persons

Pursuant to the Company's Audit Committee charter, the Company's executive officers, directors, nominees for directors and principal stockholders, including their immediate family members and affiliates, are prohibited from entering into a related party transaction with the Company without the prior approval of its Audit Committee (or other independent committee of the Board of Directors in cases where it is inappropriate for the Audit Committee to review such transaction due to a conflict of interest). Any request for the Company to enter into a transaction with an executive officer, director, nominee for director, principal stockholder or any of such persons' immediate family members or affiliates must first be presented to the Audit Committee for review, consideration and approval. In approving or rejecting the proposed agreement, the Audit Committee will consider the relevant facts and circumstances available and deemed relevant, including but not limited to, the risks, costs, and benefits to the Company, the terms of the transactions, the availability of other sources for comparable services or products, and, if applicable, the impact on director independence. The Audit Committee shall only approve those agreements that, in light of known circumstances, are in or are not inconsistent with, the Company's best interests, as determined in good faith by the Audit Committee. The Audit Committee will then document its findings and conclusions in writing.

PRINCIPAL STOCKHOLDERS

The following table sets forth, to the knowledge of the Company, certain information regarding the beneficial ownership of the Company's common stock as of March 31, 2010, by (i) each person known by the Company to be the beneficial owner of more than 5% of the outstanding common stock, (ii) each of the Company's directors and nominees, (iii) each of the named executive officers in the Summary Compensation Table and (iv) all of the Company's executive officers and directors as a group. Except as indicated in the footnotes to this table, the Company believes 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	275,500 (3)	*
John F. Benedik	105,000 (4)	*
Charles J. Casamento	240,000 (5)	*
James H. Coleman	1,067,184 (6)	1.5
Carl W. Cotman, Ph.D.	239,500 (7)	*
Peter F. Drake, Ph.D.	200,000 (8)	*
M. Ross Johnson, Ph.D.	250,000 (9)	*
Maria S. Messinger, CPA	619,885 (10)	*
Roger G. Stoll, Ph.D.	2,605,546 (11)	3.7
Pierre V. Trân, M.D., M.M.M.	618,541 (12)	*
Mark A. Varney, Ph.D.	1,230,001 (13)	1.8
All executive officers and directors as a group (12 persons)	7,978,586 (14)	10.5

* 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 March 31, 2010 is based upon 68,412,618 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 March 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 210,000 shares that may be purchased upon exercise of options within 60 days of March 31, 2010.
- (4) Includes 75,000 shares that may be purchased upon exercise of options within 60 days of March 31, 2010.
- (5) Includes 225,000 shares that may be purchased upon exercise of options within 60 days of March 31, 2010. Excludes 17,653 shares held by Mr. Casamento in a trust over which he does not exercise control.
- (6) Includes 859,597 shares that may be purchased upon exercise of options within 60 days of March 31, 2010. Beneficial ownership of these shares is shared and held by the James Henry and Nancy Irene Coleman III Revocable Trust.
- (7) Includes 165,000 shares that may be purchased upon exercise of options within 60 days of March 31, 2010.
- (8) Includes 150,000 shares that may be purchased upon exercise of options within 60 days of March 31, 2010.
- (9) Includes 220,000 shares that may be purchased upon exercise of options within 60 days of March 31, 2010.
- (10) Includes 570,821 shares that may be purchased upon exercise of options within 60 days of March 31, 2010.

- (11) Includes 2,505,546 shares that may be purchased upon exercise of options within 60 days of March 31, 2010.
- (12) Includes 588,541 shares that may be purchased upon exercise of options within 60 days of March 31, 2010.
- (13) Includes 1,200,001 shares that may be purchased upon exercise of options within 60 days of March 31, 2010.
- (14) Includes 7,266,173 shares that may be purchased upon exercise of options within 60 days of March 31, 2010.

The Company is not aware of any arrangements that may at a subsequent date result in a change of control of the Company.

PROPOSAL 2

AMENDMENT TO 2006 STOCK INCENTIVE PLAN TO INCREASE THE AUTHORIZED NUMBER OF SHARES PURCHASABLE THEREUNDER BY 2,500,000 SHARES

The Board of Directors adopted the 2006 Stock Incentive Plan (“2006 Stock Incentive Plan”) on March 30, 2006 and the stockholders approved it on May 10, 2006. On February 6, 2007 the Board of Directors amended the 2006 Stock Incentive Plan to modify the terms of the provision relating to formula grants to non-employee directors, as discussed in more detail below in the section titled “Formula Grants to Non-Employee Directors.” On February 6, 2007, the Board of Directors approved an increase in the number of shares authorized for sale under the 2006 Stock Incentive Plan by 2,500,000 shares to 4,363,799 shares. The stockholders approved this increase on May 9, 2007. On February 23, 2009, the Board of Directors approved an increase in the number of shares authorized for issuance under the 2006 Stock Incentive Plan by 3,000,000 shares to 7,363,799 shares. The stockholders approved this increase on June 5, 2009. On March 3, 2010, the Board of Directors approved an increase in the number of shares authorized for issuance under the 2006 Stock Incentive Plan by 2,500,000 shares to 9,863,799 shares.

The primary purposes of the 2006 Stock Incentive Plan are (a) to enhance the Company’s ability to attract and retain the services of qualified employees, officers, directors, consultants and other service providers upon whose judgment, initiative and efforts the successful conduct and development of the Company’s business largely depends, and (b) to provide additional incentives to such persons or entities to devote their utmost effort and skill to the advancement and betterment of the Company, by providing them an opportunity to participate in the ownership of the Company and thereby have an interest in the success and increased value of the Company.

As amended, the 2006 Stock Incentive Plan currently includes the authorized sale of up to 7,363,799 shares of common stock. Officers and directors of the Company are eligible to participate in the 2006 Stock Incentive Plan and have a substantial direct interest in the approval of the amendment to the 2006 Stock Incentive Plan.

Description of the 2006 Stock Incentive Plan

The essential features of the 2006 Stock Incentive Plan, as amended, are summarized below. This summary does not purport to be a complete description of the 2006 Stock Incentive Plan. The Company’s stockholders may obtain a copy of the 2006 Stock Incentive Plan, as amended, upon written request to the Secretary of the Company, Cortex Pharmaceuticals, Inc., 15231 Barranca Parkway, Irvine, California 92618.

The 2006 Stock Incentive Plan is an “omnibus” stock plan consisting of a variety of equity vehicles to provide flexibility in implementing equity awards, including incentive stock options, nonqualified stock options, restricted stock grants, unrestricted stock grants, stock appreciation rights, stock payment awards, restricted stock units and dividend equivalents. Participants in the 2006 Stock Incentive Plan may be granted any one of the equity awards or any combination thereof, as determined by the Board of Directors.

The Company’s Board of Directors may delegate administration of the 2006 Stock Incentive Plan to a committee comprised of no fewer than two members of the Board of Directors (the “Committee”). At the Board of Directors’ discretion, each Administrator member shall satisfy the requirements for (i) a

“non-employee director” for purposes of Rule 16b-3 of the Securities Exchange Act of 1934, as amended, and (ii) an “outside director” under Section 162(m) of the Internal Revenue Code. The term “Administrator,” as used in this proxy statement, refers to the Board of Directors, or, if the administration of the 2006 Stock Incentive Plan has been delegated to a committee, the Committee. Currently, the Board of Directors has delegated administration of the 2006 Stock Incentive Plan to the Company’s Compensation Committee.

The Administrator has broad discretion to determine the persons entitled to receive options and/or rights to purchase under the 2006 Stock Incentive Plan, the terms and conditions on which options and/or rights to purchase are granted and the number of shares subject thereto. The Administrator also has discretion to determine the nature of the consideration to be paid upon the exercise of an option and/or right to purchase granted under the 2006 Stock Incentive Plan.

Eligibility

Any person who is an employee of, or a consultant or other service provider to the Company or any affiliate thereof, or any person who is a non-employee director is eligible to be designated by the Administrator to receive awards and become a participant under the 2006 Stock Incentive Plan (a “Participant” or the “Participants”). As of March 31, 2010, six (6) executive officers, six (6) non-employee directors and approximately ten (10) other employees, consultants and service providers were eligible to participate in the 2006 Stock Incentive Plan.

Types of Awards under 2006 Stock Incentive Plan

The 2006 Stock Incentive Plan includes the following types of equity compensation awards: incentive stock options, nonqualified stock options, restricted stock grants, stock payment awards, stock appreciation rights, restricted stock units and dividend equivalents, all of which are described below.

Stock Options. Stock options granted under the 2006 Stock Incentive Plan may be either incentive stock options subject to the provisions of Section 422 of the Internal Revenue Code or nonqualified stock options.

The exercise price per share of a stock option shall not be less than the fair market value of the Company’s common stock on the date the option is granted, provided that the Administrator may in its discretion specify for any stock option an exercise price per share that is higher than the fair market value of the Company’s common stock on the date the option is granted. A stock option may be subject to such vesting and exercisability requirements as specified by the Administrator in an award agreement. Such vesting and exercisability requirements may be based on the continued service of the Participant with the Company or its affiliates for a specified time period (or periods) or on the attainment of specified performance goals established by the Administrator in its discretion. The Administrator shall determine the period during which a vested stock option may be exercised, provided that the maximum term of a stock option shall be ten years from the date the option is granted.

Stock Appreciation Rights. A stock appreciation right will entitle the holder, upon exercise or other payment of the stock appreciation right, as applicable, to receive an amount determined by multiplying: (i) the excess of the fair market value of a share of common stock of the Company on the date of exercise or payment of the stock appreciation right over the base price of such stock appreciation right, by (ii) the number of shares as to which such stock appreciation right is exercised or paid. Subject to the

requirements of Section 409A of the Internal Revenue Code, payment of the amount determined under the foregoing may be made, as approved by the Administrator and set forth in the award agreement, in shares of common stock valued at their fair market value on the date of exercise or payment, in cash, or in a combination of shares of common stock and cash, subject to applicable tax withholding requirements.

A stock appreciation right may be subject to such vesting and exercisability requirements as specified by the Administrator in an award agreement. Such vesting and exercisability requirements may be based on the continued service of the Participant with the Company or its affiliates for a specified time period (or periods) or on the attainment of specified performance goals established by the Administrator in its discretion. A stock appreciation right will be exercisable or payable at such time or times as determined by the Administrator. The base price of a stock appreciation right shall not be less than 100 percent of the fair market value of the shares of common stock of the Company on the date the right is granted.

Stock appreciation rights may be granted on a basis that allows for the exercise of the right by the Participant or that provides for the automatic payment of the right upon a specified date or event. Stock appreciation rights shall be exercisable or payable at such time or times and upon conditions as may be approved by the Administrator, provided that the Administrator may accelerate the exercisability or payment of a stock appreciation right at any time.

Restricted Stock Awards. Restricted stock awards are shares issued under the 2006 Stock Incentive Plan that are subject to restrictions on transfer and vesting requirements as determined by the Administrator. The restrictions imposed on shares granted under a restricted stock award shall lapse in accordance with the vesting requirements specified by the Administrator in the award agreement, provided that the Administrator may accelerate the vesting of a restricted stock award at any time. Such vesting requirements may be based on the continued service of the Participant with the Company or its affiliates for a specified time period (or periods) or on the attainment of specified performance goals established by the Administrator in its discretion. If the vesting requirements of a restricted stock award shall not be satisfied, the award shall be forfeited and the unvested shares of common stock subject to the award shall be returned to the Company (or, to the extent the Participant paid for the shares of common stock, the Company shall have the right to repurchase such shares from the Participant at the original purchase price).

Subject to the provisions of the 2006 Stock Incentive Plan and the applicable award agreement, the Participant shall have all rights of a stockholder with respect to the shares granted to the Participant under a restricted stock award, including the right to vote the shares and receive all dividends and other distributions paid or made with respect thereto.

Restricted Stock Unit Awards. The value of each stock unit under a restricted stock unit award is equal to one share of the Company's common stock on the applicable date or time period of determination, as specified by the Administrator. A restricted stock unit award shall be subject to such restrictions and conditions as the Administrator shall determine. A restricted stock unit award may be granted together with a dividend equivalent right with respect to the shares of common stock subject to the award, which may be accumulated and may be deemed reinvested in additional stock units, as determined by the Administrator in its discretion.

On the date the award is granted, the Administrator shall in its discretion determine the vesting requirements with respect to a restricted stock unit award, which shall be set forth in the award agreement, provided that the Administrator may accelerate the vesting of a restricted stock unit award at any time. Vesting requirements may be based on the continued service of the Participant with the Company or its

affiliates for a specified time period (or periods) or on the attainment of specified performance goals established by the Administrator in its discretion.

A restricted stock unit award shall become payable to a Participant at the time or times determined by the Administrator and set forth in the award agreement, which may be upon or following the vesting of the award. Payment of a restricted stock unit award shall be made in shares of common stock of the Company, and shall be subject to applicable tax withholding requirements. The Participant shall not have any rights as a stockholder with respect to the shares subject to a restricted stock unit award until such time as shares of common stock are delivered to the Participant pursuant to the terms of the award agreement.

Stock Payment Awards. A stock payment award may be granted for past services, in lieu of bonus or other cash compensation, as directors' compensation or for any other valid purpose as determined by the Administrator. A stock payment award granted to a Participant represents shares of the Company's common stock that are issued without restrictions on transfer and other incidents of ownership and free of forfeiture conditions, except as otherwise provided in the 2006 Stock Incentive Plan and the award agreement. The Administrator may, in connection with any stock payment award, require the payment of a specified purchase price.

Subject to the provisions of the 2006 Stock Incentive Plan and the applicable award agreement, upon the issuance of the common stock under a stock payment award the Participant shall have all rights of a stockholder with respect to the shares of common stock, including the right to vote the shares and receive all dividends and other distributions paid or made with respect thereto.

Dividend Equivalents. Dividend equivalents may be credited in respect of shares of common stock covered by an award of restricted stock units granted under the 2006 Stock Incentive Plan, as determined by the Administrator. At the sole discretion of the Administrator, such dividend equivalents may be converted into additional shares of common stock in such manner as determined by the Administrator. Any additional shares covered by an award credited by reason of such dividend equivalents will be subject to all the terms and conditions of the underlying award agreement to which they relate.

Limits on Awards. Currently, a maximum of 7,363,799 shares of common stock may be issued and sold under all awards, restricted and unrestricted, granted under the 2006 Stock Incentive Plan. Of such aggregate limit, the maximum number of shares of common stock that may be issued pursuant to (i) incentive stock options shall be 7,363,799 shares and (ii) restricted stock grants, unrestricted stock grants and restricted stock units shall be 500,000 shares. If the proposal to amend the number of shares purchaseable under the 2006 Stock Incentive Plan is approved, the maximum number of shares of common stock that may be issued and sold under all awards, restricted and unrestricted, granted under the 2006 Stock Incentive Plan will be increased to 9,863,799, and the maximum number of shares of common stock that may be issued pursuant to incentive stock options shall be increased to 9,863,799. The maximum number of shares of common stock that may be issued as restricted stock grants, unrestricted stock grants and restricted stock units shall remain at 500,000 shares.

The maximum number of shares of common stock with respect to one or more awards that may be granted to any one participant during any calendar year shall be 1,000,000. The foregoing limitations shall be subject to adjustments to reflect any recapitalizations, stock splits, reverse stock splits, reclassifications, stock dividends or other changes in the capital structure of the Company occurring after the effective date of the 2006 Stock Incentive Plan.

Shares of common stock issued and sold under the 2006 Plan may be either authorized but unissued shares or shares held in the Company's treasury. To the extent that any award involving the issuance of shares of common stock is forfeited, cancelled, returned to the Company for failure to satisfy vesting requirements or other conditions of the award, or otherwise terminates without an issuance of shares of common stock being made thereunder, the shares of common stock covered thereby will no longer be counted against the foregoing maximum share limitations and may again be made subject to awards under the 2006 Stock Incentive Plan pursuant to such limitations.

Certain Features of Awards Under 2006 Stock Incentive Plan

Payment of Exercise Price or Purchase Price. The payment of the exercise price for stock options, or the purchase price for shares of restricted stock, shares covered by restricted stock units, or stock payment awards may be made, in the discretion of the Administrator, through a variety of methods more particularly described in the 2006 Stock Incentive Plan, including, without limitation, payment by (a) cash, (b) check, (c) by delivery of shares of the Company's common stock (provided that any shares acquired pursuant to exercise of options have been held by the Participant for the requisite period necessary to avoid a charge to the Company's earnings for financial reporting purposes), which surrendered shares shall be valued at the fair market value of the Company's common stock on the date of exercise or purchase, (d) cancellation of indebtedness of the Company to the Participant, (e) waiver of compensation due to the Participant for services rendered, or (f) any combination of the foregoing methods of payment or any other consideration or method of payment as shall be permitted by applicable law.

Transferability of Awards. All incentive stock options are nontransferable except upon the Participant's death by will or the laws of descent or distribution or pursuant to the terms of certain domestic relations orders. In the case of awards other than incentive stock options, the Administrator may provide, in its discretion, for the transfer of all or part of the award to a Participant's "family member" (as defined for purposes of the Form S-8 registration statement under the Securities Act of 1933, as amended).

Adjustments to Awards Upon Certain Changes in Capitalization. In the event that the outstanding shares of the Company's common stock are increased or decreased or exchanged for a different number or kind of shares or other securities of the Company by reason of a recapitalization, stock split, combination of shares, reclassification, stock dividend or other change in the Company's capital structure, then the Administrator shall make adjustments to the aggregate number and kind of shares subject to the 2006 Stock Incentive Plan, the number and kind of shares and the exercise price per share subject to outstanding awards, and the maximum share limitations, as applicable, all in order to preserve, as nearly as practical, but not to increase, the benefits to the Participants.

Occurrence of Corporate Transaction. The 2006 Stock Incentive Plan provides that in order to preserve a Participant's rights in the event of certain transactions constituting a change in control of the Company, the Administrator shall have the discretion to provide in each award agreement the terms and conditions that relate to the vesting of such award in the event of a change in control of the Company and the assumption of such awards or the issuance of comparable securities under an incentive program in the event of such occurrence. The terms and conditions of each award agreement may vary. If the terms of an outstanding option or stock appreciation right provide for accelerated vesting in the event of a change in control, or to the extent that such award is vested and not yet exercised, the Administrator in its discretion may provide, in connection with the change in control transaction, for the purchase or exchange of each option or stock appreciation right for cash or other property. All outstanding option and stock appreciation rights will terminate and cease to be exercisable upon the consummation of a

change in control except to the extent that the options or stock appreciation rights are assumed by a successor entity (or parent) pursuant to the terms of such transaction.

Section 162(m) Awards. Awards of options and stock appreciation rights granted under the 2006 Stock Incentive Plan will automatically qualify for the “performance-based compensation” exception under Internal Revenue Code Section 162(m) pursuant to their expected terms. Awards of restricted stock, restricted stock units and stock payment awards may qualify for the performance-based compensation exception under Section 162(m) if the terms of the awards state, in terms of an objective formula or standard, the method of computing the amount of compensation payable under the award and preclude discretion to increase the amount of compensation payable under the terms of the award.

Performance Criteria. The 2006 Stock Incentive Plan includes a number of performance criteria that may be used to determine whether and to what extent the shares covered by an award have vested. The Administrator will have discretion to specify whether the criteria will be measured either annually or cumulatively over a period of years on an absolute basis or relative to a pre-established target, to the previous years’ results or to a designated peer group of companies, in each case as specified in the individual award agreement at the time of grant. The performance criteria may be stated as either target amounts, or as a percentage increase over a base period amount, and may be based upon any one or a combination of the following:

- (a) The achievement of certain scientific and development milestones;
- (b) Licensing, partnership or other strategic transactions;
- (c) Acceptance by the U.S. Food and Drug Administration (“FDA”) or a comparable foreign regulatory authority of a final New Drug Application or similar document;
- (d) Approval for marketing of a product candidate of the Company by the FDA or a comparable foreign regulatory authority;
- (e) Obtaining a specified level of financing for the Company;
- (f) Cost containment or reduction;
- (g) The percentage increase in the market price of the Company’s common stock over a stated period; and
- (h) Individual business objectives.

Amendment and Termination of the 2006 Stock Incentive Plan

The 2006 Stock Incentive Plan may be altered, amended, suspended or terminated by the Board of Directors at any time. No such alteration, amendment, suspension or termination of the 2006 Stock Incentive Plan shall be made which shall substantially affect or impair the rights of any Participant under an outstanding award agreement without such Participant's consent. Unless previously terminated by the Board of Directors, the 2006 Stock Incentive Plan will terminate on March 30, 2016, which is the tenth anniversary of the date of its adoption by the Board of Directors.

New Plan Benefits

Future awards to the Company's executive officers and employees are discretionary. Therefore, at this time the benefits that may be received by the Company's executive officers and other employees if its stockholders approve the 2006 Stock Incentive Plan cannot be determined. Because the value of stock issuable to the Company's non-employee directors under the 2006 Stock Incentive Plan will depend on the fair market value of its common stock at future dates, it is not possible to determine exactly the benefits that might be received by the Company's non-employee directors under the 2006 Stock Incentive Plan. For information regarding option grants to named executive officers and directors under the 2006 Stock Incentive Plan during the year ended December 31, 2009, see "GRANTS OF PLAN BASED AWARDS," "Director Compensation" and "Director Summary Compensation Table."

Formula Grants to Non-Employee Directors

Each non-employee director is automatically granted options to purchase up to 30,000 shares of common stock upon commencement of service as a director. Additionally, 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 up to 30,000 shares of common stock on the date of the first meeting of the Board of Directors for the relative calendar year. Stock option issuances to non-employee directors who serve on the Board of Directors to oversee an investment in the Company are determined separately. The number of nonqualified options to be granted to non-employee directors of the Company shall be determined by the Administrator, subject to the maximums detailed above. 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 in equal increments of 33 1/3% on the anniversary dates of the dates of grant, and will otherwise be subject to the terms and provisions of the 2006 Plan.

Summary of Federal Income Tax Consequences of the 2006 Stock Incentive Plan

The following is a brief summary of certain federal income tax consequences of participation in the 2006 Stock Incentive Plan. The summary should not be relied upon as being a complete statement of all possible federal income tax consequences. Federal tax laws are complex and subject to change. Participation in the 2006 Stock Incentive Plan may also have consequences under state and local tax laws which vary from the federal tax consequences described below. For such reasons, the Company recommends that each Participant consult his or her personal tax advisor to determine the specific tax consequences applicable to him or her.

Incentive Stock Options. A Participant who receives an incentive stock option will not recognize taxable income upon the grant of the option or the exercise of the option. However, the amount by which the fair market value of the shares at the time of exercise exceeds the option exercise price will

generally be included in the Participant's alternative minimum taxable income upon exercise. If stock received on exercise of an incentive option is disposed of in the same year the option was exercised, the regular tax treatment and the alternative tax treatment will be the same. If stock received on exercise of an incentive option is sold during a year subsequent to that in which the option was exercised, the basis of the stock acquired will equal its fair market value on the date of exercise for purposes of computing alternative minimum taxable income in the year of sale.

A Participant who is subject to the alternative minimum tax in the year of exercise of an incentive option may claim, as a credit against the Participant's regular tax liability in future years, the amount of alternative minimum tax paid that is attributable to the exercise of the incentive option. This credit is available in the first year following the year of exercise in which the Participant has a regular tax liability.

Gain realized by a Participant upon sale of stock issued on exercise of an incentive stock option is taxable as long-term capital gain if the Participant disposes of the shares more than two years after the date of grant of the option and more than one year after the date of exercise. If the Participant disposes of the shares less than two years after the date of grant or less than one year after the date of exercise (a "disqualifying disposition"), the Participant will recognize ordinary income in an amount equal to the difference between the option exercise price and the lower of the fair market value of the shares on the date of exercise or the amount realized on the disposition of the shares. If the amount realized in a disqualifying disposition exceeds the fair market value of the shares on the date of exercise, the gain realized, in excess of the amount taxed as ordinary income as indicated above, will be taxed as capital gain. Any loss realized upon a disqualifying disposition will be treated as a capital loss. Capital gains and losses resulting from disqualifying dispositions will be treated as long-term or short-term depending upon whether the shares were held for more or less than the applicable statutory holding period (which is currently more than one year for long-term capital gains). The Company will generally be entitled to a tax deduction in an amount equal to the amount the Participant must recognize as ordinary income, provided that certain reporting requirements are satisfied.

Under the 2006 Stock Incentive Plan, the Company may permit a Participant to pay the exercise price of an incentive option by delivering shares of common stock of the Company already owned by the Participant, valued at their fair market value on the date of exercise. Generally, if the exercise price of an incentive option is paid with already-owned shares or by a combination of cash and already-owned shares, there will be no current taxable gain or loss recognized by the Participant on the already-owned shares exchanged. A special rule applies, however, if the shares exchanged were previously acquired through the exercise of an incentive option and the applicable holding period requirements for favorable tax treatment of such shares have not been met at the time of the exchange. In such event, the exchange will be treated as a disqualifying disposition of such shares and will result in the recognition of income to the Participant, in accordance with the rules described above for disqualifying dispositions. If this special rule does not apply, then the new shares received by the Participant upon the exercise of the option equal in number to the old shares exchanged will have the same tax basis and holding period for capital gain purposes as the Participant's basis and holding period in the old shares. The balance of the shares received by the Participant upon exercise of the option will have a tax basis equal to any cash paid by the Participant, and if no cash was paid, the tax basis of such shares will be zero. The holding period of the additional shares for capital gain purposes will commence on the date of exercise. The holding period for purposes of the one-year and two-year periods described above will commence on the date of exercise as to all of the shares received upon the exercise of an incentive option. If any of the shares subject to the basis allocation rules

described above are subsequently transferred in a disqualifying disposition, the shares with the lowest tax basis will be treated as being transferred first.

Nonqualified Stock Options. Generally, no taxable income is recognized by a Participant upon the grant of a nonqualified stock option or at the time or times a nonqualified stock option becomes vested where the exercise price of such option is no less than 100% of the fair market value of the stock underlying such stock option at the time such option is granted. Under the 2006 Stock Incentive Plan, the exercise price for all options shall be at least equal to 100% of the fair market value of the stock underlying such options at the time of the grant. Upon exercise, however, the Participant will recognize ordinary income in the amount by which the fair market value of the shares purchased, on the date of exercise, exceeds the exercise price paid for such shares. The income recognized by the Participant who is an employee of the Company will be subject to income tax withholding by the Company out of the Participant's current compensation. If such compensation is insufficient to pay the taxes due, the Participant will be required to make a direct payment to the Company for the balance of the tax withholding obligation. The Company will be entitled to a tax deduction equal to the amount of ordinary income recognized by the Participant, provided that certain reporting requirements are satisfied. If the exercise price of a nonqualified stock option is paid by the Participant in cash, the tax basis of the shares acquired will be equal to the cash paid plus the amount of income recognized by the Participant as a result of such exercise. If the exercise price is paid by delivering shares of the Company's common stock already owned by the Participant or by a combination of cash and already-owned shares, there will be no current taxable gain or loss recognized by the Participant on the already-owned shares exchanged (however, the Participant will nevertheless recognize ordinary income to the extent that the fair market value of the shares purchased on the date of exercise exceeds the price paid, as described above). The new shares received by the Participant, up to the number of the old shares exchanged, will have the same tax basis and holding period as the Participant's basis and holding period in the old shares. The balance of the new shares received will have a tax basis equal to any cash paid by the Participant plus the amount of income recognized by the Participant as a result of such exercise, and will have a holding period commencing with the date of exercise. Upon the sale or disposition of shares acquired pursuant to the exercise of a nonqualified stock option, the difference between the proceeds realized and the Participant's basis in the shares will be a capital gain or loss and will be treated as long-term capital gain or loss if the shares have been held for more than the applicable statutory holding period (which is currently more than one year for long-term capital gains).

Restricted Stock. If no Section 83(b) election is made in connection with the receipt of restricted stock, and repurchase rights are retained by the Company, a taxable event will occur on each date the Participant's ownership rights vest (e.g., when the Company's repurchase rights expire) as to the number of shares that vest on that date, and the holding period for capital gain purposes will not commence until the date the shares vest. The Participant will recognize ordinary income on each date shares vest in an amount equal to the excess of the fair market value of such shares on that date over the amount paid for such shares. Any income recognized by a Participant who is an employee will be subject to income tax withholding by the Company out of the Participant's current compensation. If such compensation is insufficient to cover the amount to be withheld, the Participant will be required to make a direct payment to the Company for the balance of the tax withholding obligation. The Company will be entitled to a tax deduction in an amount equal to the ordinary income recognized by the Participant, provided that certain reporting requirements are satisfied. The Participant's basis in the shares will be equal to the purchase price, if any, increased by the amount of ordinary income recognized. If a Section 83(b) election is made within 30 days after the date of transfer, or if no repurchase rights are retained by the Company, then the Participant will recognize ordinary income on the date of purchase in an amount equal to the excess of the fair market value of such shares on

the date of purchase over the purchase price paid for such shares. The Participant's basis in such shares will be equal to the purchase price, if any, increased by the amount of ordinary income recognized.

Stock Appreciation Rights. Generally no taxable income is recognized by a Participant receiving a stock appreciation right at the time the stock appreciation right is granted or at the time or times a stock appreciation right becomes vested where the base price of a stock appreciation right is no less than 100% of the fair market value of the stock underlying such stock appreciation right at the time such option is granted. Under the 2006 Stock Incentive Plan, the base price for all stock appreciation rights shall be at least equal to 100% of the fair market value of the stock underlying such stock appreciation rights at the time of the grant. If the Participant receives the appreciation inherent in the stock appreciation right in cash, the cash will be taxed as ordinary income to the Participant at the time it is received. If the Participant receives the appreciation inherent in a stock appreciation right in stock, the spread between the then current market value and the base price will be taxed as ordinary income to the Participant at the time such amount is received. The Company is not entitled to a federal income tax deduction upon the grant or termination of a stock appreciation right. However, upon the settlement of a stock appreciation right, the Company will be entitled to a deduction equal to the amount of ordinary income the Participant is required to recognize as a result of the settlement.

Restricted Stock Unit Awards. Since the grant of restricted stock units does not generally involve the transfer of property, the Participant is not subject to tax on the date of grant. Instead, the Participant generally recognizes income upon the actual or constructive receipt of the shares underlying the restricted stock units. The Participant will recognize ordinary income on each date shares are actually or constructively received in an amount equal to the excess of the fair market value of such shares on that date over the amount paid for such shares. Any income recognized by a Participant who is an employee will be subject to income tax withholding by the Company out of the Participant's current compensation. If such compensation is insufficient to cover the amount to be withheld, the Participant will be required to make a direct payment to the Company for the balance of the tax withholding obligation. The Company will be entitled to a tax deduction in an amount equal to the ordinary income recognized by the Participant. The Participant's basis in the shares received will be equal to the purchase price, if any, increased by the amount of ordinary income recognized.

If a Participant is provided the right to defer the receipt of shares beyond the date that the restricted stock units vest, then such award must satisfy the requirements of Internal Revenue Code Section 409A to avoid adverse tax consequences to the Participant as described below.

Stock Payment Awards and Dividend Equivalents. Stock payment awards and dividend equivalents are generally subject to ordinary income tax at the time of payment.

Tax Withholding. Under the 2006 Stock Incentive Plan, the Company has the power to withhold, or require a Participant to remit to it, an amount sufficient to satisfy Federal, state and local withholding tax requirements with respect to any award granted under the 2006 Stock Incentive Plan. To the extent permissible under applicable tax, securities, and other laws, the Administrator may, in its sole discretion, permit a Participant to satisfy an obligation to pay any tax to any governmental entity in respect of any option or restricted stock up to an amount determined on the basis of the highest marginal tax rate applicable to such Participant, in whole or in part, by (i) directing the Company to apply shares of common stock to which the participant is entitled pursuant to an award, or (ii) delivering to the Company shares of common stock owned by the Participant.

Tax Deduction Limitation. Section 162(m) of the Internal Revenue Code generally limits to \$1,000,000 the amount that a publicly-held corporation is allowed each year to deduct for the compensation paid to the corporation's chief executive officer and each of the corporation's four most highly compensated executive officers other than the chief executive officer. However, "performance-based" compensation is not subject to the \$1,000,000 deduction limit. In general, to qualify as performance-based compensation, the following requirements must be satisfied: (a) payments must be computed on the basis of an objective, performance-based compensation standard determined by a committee consisting solely of two or more "outside directors," (b) the material terms under which the compensation is to be paid, including the business criteria upon which the performance goals are based, and a limit on the maximum amount which may be paid to any participant pursuant to any award with respect to any performance period, must be approved by the corporation's stockholders, and (c) the committee must certify in writing whether, and the extent to which, the applicable performance goals have been satisfied before payment of any performance-based compensation is made. The Company's Compensation Committee currently consists solely of "outside directors" as defined for purposes of Section 162(m) of the Internal Revenue Code, and it is the intent of the Board of Directors that all future Committee members will also satisfy that definition. Stock options and stock appreciation rights, the terms of which limit the amount of compensation that an employee may receive to an increase in the value of the underlying stock covered by the option or right after the date of grant, automatically satisfy the performance goal requirement described in item (a) above.

Deferred Compensation. Any deferrals made under the 2006 Stock Incentive Plan, including awards granted under the Plan that are considered to be deferred compensation, must satisfy the requirements of Internal Revenue Code Section 409A to avoid adverse tax consequences to Participants, which include the current inclusion of deferred amounts in income and interest and a surtax on any amount included in income. The Section 409A requirements include limitations on election timing, acceleration of payments and distributions. Section 409A applies to certain stock appreciation rights, stock unit awards, and other awards that provide the Participant with an opportunity to defer the recognition of income. The Company intends to structure any awards under the 2006 Stock Incentive Plan to meet the applicable tax law requirements under Internal Revenue Code Section 409A in order to avoid its adverse tax consequences.

Vote Required

Approval of the amendment to the 2006 Stock Incentive Plan to increase the number of shares purchasable thereunder from 7,363,799 to 9,863,799 shares will require the affirmative vote of the holders of a majority of the shares of outstanding common stock present or represented at the Annual Meeting of Stockholders and entitled to vote thereat. In determining whether the proposal has been approved, abstentions will be counted as votes against the proposal and broker non-votes will not be counted as votes for or against the proposal or as votes present and voting on the proposal. **The Board of Directors recommends that you vote FOR the approval of the amendment to the 2006 Stock Incentive Plan to increase the number of shares of common stock issuable thereunder by 2,500,000 shares.** Proxies solicited by management for which no specific direction is included will be voted FOR approval of the amendment to the 2006 Stock Incentive Plan to increase the number of shares of common stock issuable thereunder by 2,500,000 shares.

EQUITY COMPENSATION PLAN INFORMATION

The following table sets forth information regarding outstanding options, warrants and rights and shares reserved for future issuance under our existing equity compensation plans as of December 31, 2009. Our stockholders approved the Company's 1996 Stock Incentive Plan, as amended and restated, and the Company's 2006 Stock Incentive Plan, as amended. Following the expiration of the 1996 Stock Incentive Plan in October 2006, all subsequently granted stock options were and will be issued from the 2006 Stock Incentive Plan.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	13,188,498	1.38	411,969
Equity compensation plans not approved by security holders	350,000(1)	2.59	---
Total	13,538,498	\$1.41	411,969

(1) In January 2006, as an inducement to the employment of our Chief Operating Officer and Chief Scientific Officer, Mark A. Varney, Ph.D., we issued 250,000 options outside of the 1996 Stock Incentive Plan and the 2006 Stock Incentive Plan. The options granted to Dr. Varney have a ten-year term and vested in the following installments: 83,334 on January 30, 2007, 83,333 on January 30, 2008 and 83,333 on January 30, 2009. In March 2007, as an inducement to the employment of our Senior Director of Medicinal Chemistry, Leslie J. Street, Ph.D., we issued 100,000 options outside of the 2006 Stock Incentive Plan. The options have a ten-year term and vested in the following installments: 33,334 on March 5, 2008, 33,333 on March 5, 2009 and 33,333 on March 5, 2010.

PROPOSAL 3

RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTANTS

The Audit Committee has selected Haskell & White LLP, independent registered public accountants, to audit the financial statements of the Company for the fiscal year ending December 31, 2010. In determining whether the proposal has been approved, abstentions will be counted as votes against the proposal and broker non-votes will not be counted as votes for or against the proposal or as votes present and voting on the proposal. If this proposal is not approved, the Audit Committee shall reconsider its selection and submit its recommendation to the Board of Directors.

A representative of Haskell & White LLP is expected to be present at the meeting and will be available to respond to appropriate questions. The representative will also have an opportunity to make a statement if he or she desires to do so.

The Company's Board of Directors recommends that you vote FOR the ratification of Haskell & White LLP as its independent registered public accountants for the fiscal year ending December 31, 2010. Proxies solicited by management for which no specific direction is included will be voted FOR the ratification of Haskell & White LLP as the Company's independent registered public accountants for the fiscal year ending December 31, 2010.

Audit Fees

The aggregate fees of Haskell & White LLP, the Company's independent registered public accountants, for audit services totaled approximately \$101,000 and \$119,000 for the fiscal years ended December 31, 2009 and 2008, respectively, including fees associated with the reviews of the Company's quarterly reports on Form 10-Q and the annual audit.

Audit-Related Fees

The aggregate fees of Haskell & White LLP for audit-related fees totaled approximately \$4,000 and \$11,000, respectively for the fiscal years ended December 31, 2009 and 2008, and included services related to the Company's registration statements filed on Forms S-3 and S-8.

Tax Fees

Fees of Haskell & White LLP for tax services, including tax compliance, tax advice and tax planning totaled approximately \$10,000 and \$10,200 for the fiscal years ended December 31, 2009 and 2008, respectively.

All Other Fees

There were no other fees for services provided by Haskell & White LLP for the fiscal years ended December 31, 2009 or 2008.

All of the services described under headings "Audit-Related Fees," "Tax Fees" and "All Other Fees" above were pre-approved by the Audit Committee.

The Audit Committee has determined that the provision of services, in addition to audit services, rendered by Haskell & White LLP and the fees paid therefor for the fiscal years ended December 31, 2009 and 2008 were compatible with maintaining Haskell & White LLP's independence.

Policy on Audit Committee Pre-Approval of Audit Services and Permissible Non-Audit Services of Independent Registered Public Accountants.

The Audit Committee's policy is to pre-approve all audit and permissible non-audit services performed by the independent registered public accountants. These services may include audit services, audit-related services, tax services and other services. For audit services, the independent registered public accountant provides the Audit Committee with an audit plan including proposed fees in advance of the annual audit. The Audit Committee approves the plan and fees for the audit.

For non-audit services, the Company's senior management will submit from time to time to the Audit Committee for approval non-audit services that it recommends the Audit Committee engage the independent registered public accountants to provide during the fiscal year. The Company's senior management and the independent registered public accountants will each confirm to the Audit Committee that each non-audit service is permissible under all applicable legal requirements. A budget, estimating non-audit service spending for the fiscal year, will be provided to the Audit Committee along with the request. The Audit Committee must approve both permissible non-audit services and the budget for such services.

STOCKHOLDER PROPOSALS

Any stockholder desiring to submit a proposal for action at the 2011 Annual Meeting of Stockholders and presentation in the Company's proxy statement with respect to such meeting should arrange for such proposal to be delivered to the Company's offices, 15231 Barranca Parkway, Irvine, California 92618, addressed to the Secretary, no later than December 16, 2010 in order to be considered for inclusion in the Company's proxy statement relating to the meeting. Matters pertaining to such proposals, including the number and length thereof, eligibility of persons entitled to have such proposals included and other aspects are regulated by the Securities Exchange Act of 1934, Rules and Regulations of the Securities and Exchange Commission and other laws and regulations to which interested persons should refer.

Additionally, under Rule 14a-4, as promulgated under the Securities and Exchange Act of 1934, as amended, if a stockholder fails to notify the Company of a proposal at least 45 days prior to the month and day of mailing of the prior year's proxy statement, then the Company will be allowed to use its discretionary voting authority when the proposal is raised at the meeting, without any discussion of the matter in the proxy statement. With respect to the Company's 2011 Annual Meeting of Stockholders, a stockholder proposal not previously submitted for the Company's proxy statement may be submitted until March 1, 2010; thereafter, the Company will use its voting authority as described above.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934 requires the Company's directors and executive officers and persons who own more than ten percent of a registered class of the Company's equity securities to file with the Securities and Exchange Commission (the "SEC") initial reports of ownership and reports of changes in ownership of common stock and other equity securities of the Company. Officers, directors and ten-percent stockholders are required by SEC regulations to furnish the Company with copies of all Section 16(a) forms they file. To the Company's knowledge, based solely on the review of copies of such reports furnished to the Company and written representations that no other reports were required, during the fiscal year ended December 31, 2009, all of the Company's officers, directors and ten-percent stockholders complied with all applicable Section 16(a) filing requirements with the exception of Dr. Steven Johnson, an officer, who filed a Form 5 on February 2, 2010 to report an earlier sale of shares of the Company's common stock by his spouse.

TRANSACTION OF OTHER BUSINESS

As of the date of this proxy statement, the Board of Directors is not aware of any matters other than those set forth herein and in the Notice of Annual Meeting of Stockholders that will come before the meeting. Should any other matters arise requiring the vote of stockholders, it is intended that proxies will be voted in respect thereto in accordance with the best judgment of the person or persons voting the proxies.

Please return your proxy as soon as possible. Unless a quorum consisting of a majority of the outstanding shares entitled to vote is represented at the meeting, no business can be transacted. Therefore, **please be sure to date and sign your proxy exactly as your name appears on your stock certificate and return it in the enclosed postage prepaid return envelope. Please act promptly to ensure that you will be represented at this important meeting.**

THE COMPANY WILL PROVIDE WITHOUT CHARGE, AT THE WRITTEN REQUEST OF ANY BENEFICIAL OWNER OF SHARES ENTITLED TO VOTE AT THE ANNUAL MEETING OF STOCKHOLDERS, A COPY (WITHOUT EXHIBITS) OF THE COMPANY'S ANNUAL REPORT ON FORM 10-K AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION FOR THE FISCAL YEAR ENDED DECEMBER 31, 2009. REQUESTS SHOULD BE MAILED TO THE SECRETARY, CORTEX PHARMACEUTICALS, INC., 15231 BARRANCA PARKWAY, IRVINE, CALIFORNIA 92618.

By Order of the Board of Directors

Maria S. Messinger, CPA
Secretary

April 16, 2010