

CORTEX PHARMACEUTICALS INC/DE/
Form DEF 14A
May 01, 2009

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities

Exchange Act of 1934

(Amendment No. __)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

Preliminary Proxy Statement

Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Pursuant to §240.14a-11(c) or §240.14a-12

CORTEX PHARMACEUTICALS, INC.

(Name of Registrant as Specified in Its Charter)

N/A

(Name of Person(s) Filing Proxy Statement)

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(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:

CORTEX PHARMACEUTICALS, INC.

15231 Barranca Parkway

Irvine, California 92618

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

June 5, 2009

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 Hyatt Regency Irvine, 17900 Jamboree Road, Irvine, California, on Friday, June 5, 2009 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 3,000,000 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, 2009 (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 29, 2009 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 June 5, 2009.

Pursuant to new 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

May 7, 2009

CORTEX PHARMACEUTICALS, INC.

15231 Barranca Parkway

Irvine, California 92618

PROXY STATEMENT

ANNUAL MEETING OF STOCKHOLDERS

To Be Held June 5, 2009

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 Georgeson Inc. (**GS**) as its proxy solicitation agent, and has agreed to pay GS a fee of \$7,500 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 3,000,000 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 May 7, 2009.

Voting at the Meeting

Only record holders of Common Stock of the Company at the close of business on April 29, 2009, will be entitled to notice of, and to vote at, the meeting. As of the record date, there were 48,615,209 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 proposals 1 and 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:

| Name | Age | Director | | Principal Occupation |
|-------------------------------|-----|----------|--|---|
| | | Since | | |
| Robert F. Allnutt (1)(3) | 73 | 1995 | | Senior Counselor, APCO Worldwide, Inc. |
| John F. Benedik (2)(3) | 61 | 2005 | | Retired Senior Partner, Arthur Andersen LLP |
| Charles J. Casamento (1)(2) | 63 | 1997 | | Principal and Executive Officer, The Sage Group, Inc. |
| Carl W. Cotman, Ph.D. (4) | 69 | 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) | 55 | 2003 | | Managing General Partner, Mayflower Partners |
| M. Ross Johnson, Ph.D. (1)(4) | 64 | 2002 | | President and Chief Executive Officer, Parion Sciences, Inc. |
| Roger G. Stoll, Ph.D. | 66 | 2002 | | Executive Chairman of the Company |
| Mark A. Varney, Ph.D. (4) | 42 | 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 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 25 years, including 15 years at NASA, where his positions included Associate Deputy Administrator, the third ranking position in the agency headquarters. Mr. Allnutt currently serves as member of the board of directors and Vice Chair of the American Hospice Foundation. He previously served as a director of several pharmaceutical-related public and private companies, and of numerous

charitable organizations including the National Health Council, the National Council on Aging, the National Medals of Science and Technology Foundation, and the NASA Alumni League. Mr. Allnutt holds a B.S. in Industrial Engineering from the Virginia Polytechnic Institute and J.D. (with distinction) and L.L.M. degrees from George Washington University.

John F. Benedik was appointed to the Board of Directors of the Company in December 2005. From 1970 to May 2003, Mr. Benedik served with Arthur Andersen LLP, being 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. He currently serves as a board member and treasurer of the American Conference on Diversity. Mr. Benedik, a 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.

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 and General Manager of Pharmaceuticals and Biochemicals of Genzyme; Vice President, Business Development and Strategic Planning for the Critical Care Division of American Hospital Supply; and various finance, marketing and business development positions with Johnson & Johnson, Hoffmann-La Roche, 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 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.

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, served as a director of the Company from March 1989 to October 1990, and was reelected as a director in 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 chaired the Scientific Advisory Council of the Alzheimer's Association and is 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 such as the Journal of Alzheimer's Disease and Other Dementias and has authored or co-authored nine books and over 670 articles in the fields of neurobiology, memory and cognition, and the basic mechanisms causing brain dysfunction in aging and the development of Alzheimer's disease. 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.

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 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, and The Alliance For Aging Research, a non-profit organization dedicated to supporting and accelerating medical discoveries to improve the experience of aging and health. He also serves on the board of directors of Penwest Pharmaceuticals, a publicly traded drug delivery company. 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.

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 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., the University of North Carolina Education Advancement Board and Kainos Medicine, Inc. 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. His extensive contributions to drug discovery and development and basic science have resulted in over 300 scientific publications, patents and invited presentation, which include 119 issued U.S. patents. 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.

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 Executive Chairman of the Company and Mark A. Varney, Ph.D. became President and Chief Executive Officer. 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 and the board of directors of BIOCUM, a regional life science association. 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.

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 named President and Chief Executive Officer in August 2008. Prior to joining the Company, from June 2004 to January 2006, Dr. Varney held a senior level position at Sepracor, Inc., a publicly held pharmaceutical company where he was Vice President and Head of Discovery. 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. Prior to that, 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.

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:

| Name | Age | Position with Company |
|------------------------------|------------|---|
| Roger G. Stoll, Ph.D. | 66 | Executive Chairman |
| Mark A. Varney, Ph.D. | 42 | President and Chief Executive Officer |
| Pierre V. Trân, M.D., M.M.M. | 49 | Chief Medical Officer and Vice President, Clinical Development |
| Maria S. Messinger | 41 | Vice President, Chief Financial Officer and Corporate Secretary |
| James H. Coleman | 67 | Senior Vice President, Business Development |
| Steven A. Johnson | 57 | 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 is 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 January 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 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 served as a consultant from April 2004 through March 2009. Arvid M. Carlsson, M.D., Ph.D. serves as a consultant to the Board of Directors.

Gary S. Lynch, Ph.D., 65, 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. He is a co-founder of Synaptics, Inc., a publicly held company in the information technology industry, and Thuris Corporation, a privately held company focused on medical device solutions to aid in drug development and diagnosis of central nervous system disorders.

Gary D. Tollefson, M.D., Ph.D. served as a director and consultant of the Company from April 2004 until his death in March 2009. From May 2005 to early December 2008, Dr. Tollefson served as Chief Executive Officer of Orexigen Therapeutics, a publicly held biotechnology company. He was also a Clinical Professor of Psychiatry at the Indiana University School of Medicine, a position that he held since April 2004, and a consultant in pharmaceutical product development and strategy for Consilium, Inc. Prior to March 2004, Dr. Tollefson was employed as a senior executive at Eli Lilly & Company for nearly 14 years. As an employee of Eli Lilly & Company, Dr. Tollefson played a key strategic role in the development of the psychopharmacologic drugs Prozac®, Zyprexa®, Straterra®, Symbyax® and Cymbalta®. Dr. Tollefson's other career highlights include having served as Distinguished Lilly Research

Scholar and Vice President Medical-Neuroscience; President, Neuroscience Products and Vice President, Lilly Research Laboratories. Prior to joining Lilly, he was Chairman of the Department of Psychiatry, St. Ramsey Medical Center, a University of Minnesota Teaching Affiliate Hospital. Dr. Tollefson received his B.A. (Psychology), M.D. and Ph.D. (Psychopharmacology) from the University of Minnesota. Dr. Tollefson conducted his internship at St. Paul-Ramsey Medical Hospital and residency in Psychiatry at the University of Minnesota Hospitals in Minneapolis. Dr. Tollefson was certified by the American Board of Neurology and Psychiatry and the National Board of Medical Examiners. He served on the board of directors of Xenoport, Inc., a publicly held company focused on developing candidates that utilize the body's natural nutrient transport mechanisms to improve the therapeutic benefits of existing drugs. He was a member of several medical societies including a Fellow in the American College of Neuropharmacology, the American Society of Clinical Psychopharmacology, American Psychiatric Association, Society for Biological Psychiatry, American Academy of Clinical Psychiatrists and the International Psychogeriatric Association. Dr. Tollefson served as a journal reviewer for several medical and psychiatric journals. Dr. Tollefson authored or co-authored over 200 peer-reviewed scientific publications, was an international speaker in medical education and was awarded 22 method of treatment patents.

Arvid Carlsson, M.D., Ph.D., 86, 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 121A 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 121A 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 121A 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 121A 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 nine directors serving at the time of the Company's 2008 annual meeting attended such meeting.

Code of Ethics. In compliance with Section 406 of the Sarbanes-Oxley Act of 2002 and the NYSE Amex corporate governance listing standards, 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 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, 2008 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 121A 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, 2008 to discuss the annual audit of the financial statements for the fiscal year ended December 31, 2007, and the review of the financial statements for the quarters ended March 31, 2008, June 30, 2008 and September 30, 2008. 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, however, it utilizes the Radford Biotechnology Executive Survey Report and the BioWorld Today Executive Survey Report in connection with its annual review. 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 four (4) meetings during the fiscal year ended December 31, 2008 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 121A 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. 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 121A 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, 2008.

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 121A 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. During the fiscal year ended December 31, 2008 and 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.

Attendance at Meetings

During the fiscal year ended December 31, 2008, the Board of Directors held a total of five (5) 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, except for Robert F. Allnutt, who attended 70% of such aggregate number of meetings.

Compensation Committee Interlocks and Insider Participation

For the fiscal year ended December 31, 2008, 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, 2008.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Overview of Compensation Program. Throughout this proxy statement, the individuals who served as the Company's Chief Executive Officer and Chief Financial Officer during fiscal 2008, as well as the other individuals included in the Summary Compensation Table on page 19, 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 utilizes the Radford Biotechnology Executive Survey Report and the BioWorld Today Executive Survey Report in connection with its annual review of its total compensation program for the Chief Executive Officer as well as for the other named executive officers. The Compensation Committee also 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.

2008 Executive Compensation Components

For the fiscal year ended December 31, 2008, the principal components of compensation for named executive officers were: (i) base salary; (ii) variable performance awards payable in cash, stock or stock options and tied to the achievement of certain goals; (iii) long-term stock-based incentive awards that strengthen the mutuality of interests between the named executive officers and the Company's stockholders; and (iv) 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, 2008 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, 2008, the performance targets for the named executive officers included, but were not limited to, making clinical progress with the Company's AMPAKIN® technology, securing additional finances and operating within established financial expectations and preparing the Company's annual assessment of its internal control system, as required by the Sarbanes-Oxley Act of 2002. 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, 2006, 2007 and 2008, 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, 2008, stock options totaling 1,507,000 shares were granted to employees under the 2006 Stock Incentive Plan, including awards granted as part of the hiring process for select employees. Of the 1,507,000 stock options granted under the 2006 Stock Incentive Plan, 650,000 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, 2008, are included in the column titled, All Other Compensation of the Summary Compensation Table on page 19.

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 32. 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 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 27, 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, enacting Internal Revenue Code Section 409A, and changing the tax rules applicable to nonqualified deferred compensation arrangements. Moreover, compliance with the final Section 409A regulations is required as of January 1, 2009. Internal Revenue Code Section 409A can apply to a wide variety of compensatory arrangements, including without limitation, executive employment and severance agreements, equity incentive programs, as well as traditional deferred compensation plans. Any deferrals made under these and other arrangements that are considered to be nonqualified deferred compensation must satisfy the requirements of Internal Revenue Code Section 409A to avoid adverse tax consequences to recipients of such compensation, which include the current inclusion of deferred amounts in income and interest and a surtax on any amount included in income.

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 Statement 123(R).

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, 2008, 2007 and 2006. Other than the hiring bonuses incurred in 2007 in connection with the addition of the Company's new Chief Medical Officer, Dr. Pierre Trân, and in 2006 in connection with the addition of the Company's Chief Operating Officer and Chief Scientific Officer, and now President and Chief Executive Officer, Dr. Mark Varney, the named executive officers did not earn any cash bonus payments during the fiscal years ended December 31, 2008, 2007 or 2006. 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 and the heading, "All Other Compensation" for Dr. Stoll for the year ended December 31, 2006 includes the estimated value of equity awards recorded for financial reporting purposes using the Black-Scholes option pricing model, as explained more fully below, and does not reflect actual cash payments or actual dollars awarded. The second table below identifies the actual cash compensation for each named executive officer during the fiscal years ended December 31, 2008, 2007 and 2006.

| 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 | 2008 | \$ 370,000 | | | \$ 187,985 | | \$ 557,985 |
| | 2007 | \$ 350,000 | | | \$ 338,949 | \$ 37,168(4) | \$ 726,117 |
| | 2006 | \$ 336,500 | | | \$ 415,596 | \$ 308,756(5) | \$ 1,060,852 |
| Mark A. Varney, Ph.D. President and Chief | 2008 | \$ 347,277 | | | \$ 292,764 | \$ 88,000(6) | \$ 728,041 |
| | 2007 | \$ 318,000 | | | \$ 475,330 | \$ 147,545(7) | \$ 940,875 |
| Executive Officer | 2006 | \$ 277,308 | \$ 25,000(8) | | \$ 866,285 | \$ 197,856(9) | \$ 1,386,449 |
| Pierre V. Trân, M.D., M.M.M. (10) Chief Medical Officer and | 2008 | \$ 305,000 | | | \$ 137,792 | \$ 86,400(12) | \$ 529,192 |
| | 2007 | \$ 63,542 | \$ 80,000(11) | | \$ 151,068 | \$ 18,000(12) | \$ 312,610 |
| Vice President of Clinical Development | | | | | | | |
| Maria S. Messinger, CPA Vice President, Chief | 2008 | \$ 243,000 | | \$ 14,870 | \$ 76,689 | | \$ 334,559 |
| | 2007 | \$ 225,000 | | | \$ 125,697 | | \$ 350,697 |
| Financial Officer and Corporate Secretary | 2006 | \$ 209,000 | | | \$ 152,371 | | \$ 361,371 |
| James H. Coleman Senior Vice President, | 2008 | \$ 250,000 | | \$ 5,464 | \$ 76,689 | \$ 9,280(13) | \$ 341,433 |
| | 2007 | \$ 240,000 | | | \$ 125,697 | \$ 9,280(13) | \$ 374,977 |
| Business Development | 2006 | \$ 232,000 | | | \$ 152,371 | \$ 10,123(13) | \$ 394,494 |

- (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 dollar amount recognized for financial statement reporting purposes for the fiscal years ended December 31, 2008, 2007 and 2006, as indicated, in accordance with FAS 123(R) and may include amounts from awards granted prior to those dates. 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, 2008, included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission on April 15, 2009.
- (3) In accordance with Securities and Exchange Commission rules, Other Annual Compensation in the form of perquisites and other personal benefits has been omitted where the aggregate amount of such perquisites and other personal benefits was less than \$10,000.
- (4) Amount represents reimbursement of certain of Dr. Stoll's deferred moving expenses.
- (5) Amount does not represent a cash payment. Amount represents the dollar amount recognized for financial statement reporting purposes for the fiscal year ended December 31, 2006, in accordance with FAS 123(R), for options granted to Dr. Stoll in lieu of cash reimbursement of certain relocation expenses. 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, 2006, included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 15, 2007.
- (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 a gross-up factor of 1.6, or \$33,000, to cover his additional income tax liabilities. See Employment and Consulting Agreements on page 27.
- (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 a gross-up factor of 1.6, or \$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 27.
- (8) Represents payment by the Company of a hiring bonus to Dr. Varney under his employment agreement. See Employment and Consulting Agreements on page 27.
- (9) Represents amounts paid for a mortgage subsidy, temporary housing and other fees and expenses related to Dr. Varney's relocation to southern California, pursuant to the terms of his employment agreement. See Employment and Consulting Agreements on page 27. Amount also includes the accrued payment for the shortfall between the sales price and the equity for the home that he sold in connection with his relocation, pursuant to the terms of his Negative Equity Agreement with the Company dated February 1, 2007.
- (10) Dr. Tr  n was named Chief Medical Officer and Vice President of Clinical Development in October 2007.
- (11) Represents payment by the Company to Dr. Tr  n 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 27.
- (12) Represents amounts paid for temporary housing, subject to a gross-up factor to cover related income tax liabilities, in connection with Dr. Tr  n's relocation to southern California, pursuant to the terms of his employment agreement. See Employment and Consulting Agreements on page 27.
- (13) 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, 2008, 2007 and 2006. The non-cash components include the estimated value of equity awards as recorded for financial statement reporting purposes, utilizing the Black-Scholes option pricing model, as described more fully in the table above. As of December 31, 2008, outstanding and vested options held by the named executive officers had no aggregate intrinsic value. As of the same date, the outstanding and unvested options held by the named executive officers had an aggregate intrinsic value of approximately \$19,500.

Name and

| Principal Position | Year | Total Cash Compensation (\$) | Total Non-cash Compensation (\$) | Total (\$) |
|---|-------------|-------------------------------------|---|-------------------|
| Roger G. Stoll, Ph.D. Executive Chairman | 2008 | \$ 370,000 | \$ 187,985 | \$ 557,985 |
| | 2007 | \$ 387,168 | \$ 338,949 | \$ 726,117 |
| | 2006 | \$ 336,500 | \$ 724,352 | \$ 1,060,852 |
| Mark A. Varney, Ph.D. President and Chief Executive Officer | 2008 | \$ 435,277 | \$ 292,764 | \$ 728,041 |
| | 2007 | \$ 465,545 | \$ 475,330 | \$ 940,875 |
| | 2006 | \$ 500,164 | \$ 866,285 | \$ 1,386,449 |
| Pierre V. Trân, M.D., M.M.M. Chief Medical Officer and Vice President of Clinical Development | 2008 | \$ 391,400 | \$ 137,792 | \$ 529,192 |
| | 2007 | \$ 161,542 | \$ 151,068 | \$ 312,610 |
| Maria S. Messinger, CPA Vice President, Chief Financial Officer and Corporate Secretary | 2008 | \$ 243,000 | \$ 91,559 | \$ 334,559 |
| | 2007 | \$ 225,000 | \$ 125,697 | \$ 350,697 |
| James H. Coleman Senior Vice President, Business Development | 2006 | \$ 209,500 | \$ 152,371 | \$ 361,371 |
| | 2008 | \$ 259,280 | \$ 82,153 | \$ 341,433 |
| | 2007 | \$ 249,280 | \$ 125,697 | \$ 374,977 |
| | 2006 | \$ 242,123 | \$ 152,371 | \$ 394,494 |

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. | 01/18/2008 N/A | | \$ 74,000 | \$ 74,000 | | 200,000 | \$ 0.54 | \$ 87,280 N/A |
| Mark A. Varney, Ph.D. | 08/13/2008 01/18/2008 N/A | | \$ 72,400 | \$ 72,400 | | 200,000(3) 200,000 | \$ 0.97 \$ 0.54 | \$ 154,653 \$ 87,280 N/A |
| Pierre V. Tran, M.D., M.M.M. | 01/18/2008 N/A | | \$ 61,000 | \$ 91,500 | | 50,000 | \$ 0.54 | \$ 21,820 N/A |
| Maria S. Messinger, CPA | 05/30/2008 01/18/2008 N/A | | \$ 48,600 | \$ 48,600 | 19,064 | | \$ 0.78 \$ 0.54 | \$ 14,870 \$ 43,640 N/A |
| James H. Coleman | 05/30/2008 01/18/2008 N/A | | \$ 50,000 | \$ 125,000 | 7,005 | | \$ 0.78 \$ 0.54 | \$ 5,464 \$ 43,640 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.
- (2) Represents the number of shares of the Company's common stock 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. The shares of the Company's common stock were issued under the Company's 2006 Stock Incentive Plan. The fair market value of these shares also has been included in the Summary Compensation Table on page 19.
- (3) In connection with his appointment as President and Chief Executive Officer, in August 2008 Dr. Varney received options to purchase 200,000 shares of the Common Stock of the Company with an exercise price of \$0.97 per share, representing the closing price of the Company's Common Stock on the NYSE Amex on the grant date.

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, 2008. The table below relates solely to outstanding option awards as of December 31, 2008. 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. | | 200,000 | | \$ 0.54 | 01/18/2018 |
| | 200,000 | 100,000 | | \$ 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. | | 200,000 | | \$ 0.97 | 08/13/2018 |
| | | 200,000 | | \$ 0.54 | 01/18/2018 |
| | 166,667 | 83,333 | | \$ 1.30 | 12/18/2016 |
| | 566,667(5) | 183,333 | | \$ 2.95 | 01/30/2016 |
| | | | | | |
| Pierre V. Trân, M.D., M.M.M. | | 50,000 | | \$ 0.54 | 01/18/2018 |
| | 360,416(6) | 389,584 | | \$ 0.66 | 10/16/2017 |
| Maria S. Messinger, CPA | | 100,000 | | \$ 0.54 | 01/18/2018 |
| | 83,334 | 41,666 | | \$ 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 |
| 40,000 | | | \$ 0.75 | 12/17/2009 | |

| James H. Coleman | | 100,000 | \$ 0.54 | 01/18/2018 |
|------------------|-----------|---------|---------|------------|
| | 83,334 | 41,666 | \$ 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 re-instated in September 2003. These options were fully vested on the date of grant.
- (3) Represents stock options issued in lieu of a portion of base salary. The number of options issued represents the dollar value of base salary not received by the named executive officer divided by the closing sale price of the Company's Common Stock on the NYSE Amex on the last trading day of the month during which the portion of base salary was not received by the named executive officer. These options were fully vested on the date of grant.
- (4) In connection with his employment, Dr. Stoll was granted options to purchase 600,000 shares of Common Stock at an exercise price of \$0.78 per share, representing the closing price of the Company's Common Stock on the NYSE Amex on the date of grant. Of the 600,000 options granted, 200,000 options vested immediately. Another 200,000 options vested upon securing the amendment to the Company's agreement with Les Laboratoires Servier in October 2002. The remaining 200,000 options vested upon the achievement of pre-determined milestones, all of which were met by the beginning of 2007.
- (5) In connection with his employment, Dr. Varney was granted options to purchase 750,000 shares of Common Stock at an exercise price of \$2.95 per share, representing the closing price of the Company's Common Stock on the date of grant. Of the 750,000 options granted, 100,000 options vested upon his first date of employment on January 30, 2006; 100,000 options vested one-year from his initial date of employment, or January 30, 2007; and 550,000 options shall vest 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, 2008.

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, 2008, 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 27. In March 2009, the named executive officers also entered into retention agreements, the impact of which is not considered in this section titled Potential Payments Upon Termination or Change-in-Control due to the effective date of such agreements being after December 31, 2008, however, the terms of such agreements are discussed under the heading CERTAIN TRANSACTIONS on page 32.

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 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, 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. 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).

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. Trần within six (6) months following, a change of control without cause or for good reason (other than Dr. Trần 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." Additionally, in connection with such event, Dr. Trần will receive a severance payment of twelve months of his base salary and twelve (12) months continued health and benefits coverage. 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, 2008. 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 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 | \$ 370,000 |
| | Accrued Vacation Pay | \$ 30,811 | \$ 30,811 | \$ 30,811 | \$ 30,811 | \$ 30,811 |
| | Stock Options Accelerated Health Care | | | | \$ 6,000(2) | \$ 6,000(2) |
| | Disability Income | \$ 236,372(1) | | | | |
| | Life Insurance Benefits | \$ 482,000(3) | | | | |
| Mark A. Varney, Ph.D. | Base Salary | \$ 239,500(4) | | | \$ 347,277 | \$ 347,277 |
| | Accrued Vacation Pay | \$ 22,169 | \$ 22,169 | \$ 22,169 | \$ 22,169 | \$ 22,169 |
| | Stock Options Accelerated Health Care | | | | | \$ 6,000(2) |
| | Disability Income | \$ 1,926,567(5) | | | | |
| | Life Insurance Benefits | \$ 724,000(3) | | | | |
| Pierre V. Trần, M.D., M.M.M. | Base Salary | | | | | \$ 305,000(6) |
| | Accrued Vacation Pay | \$ 21,951 | \$ 21,951 | \$ 21,951 | \$ 21,951 | \$ 21,951 |
| | Stock Options Accelerated Health Care | | | | | \$ 1,500(2)(6) |
| | Disability Income | \$ 1,510,215(5) | | | | \$ 17,512(6)(7) |
| | Life Insurance Benefits | \$ 611,000(3) | | | | |
| Maria S. Messinger | Base Salary | | | | \$ 243,000 | \$ 243,000 |
| | Accrued Vacation Pay | \$ 44,981 | \$ 44,981 | \$ 44,981 | \$ 44,981 | \$ 44,981 |
| | Stock Options Accelerated Health Care | | | | | \$ 3,000(2) |
| | Disability Income | \$ 1,983,994(5) | | | \$ 17,293(7) | \$ 17,293(7) |
| | Life Insurance Benefits | \$ 486,000(3) | | | | |

| | | | | | | |
|------------------|---------------------------|---------------|-----------|-----------|------------|-------------|
| James H. Coleman | Base Salary | \$ 127,500(1) | | | \$ 250,000 | \$ 250,000 |
| | Accrued Vacation Pay | \$ 45,275 | \$ 45,275 | \$ 45,275 | \$ 45,275 | \$ 45,275 |
| | Stock Options Accelerated | | | | \$ 1,000 | \$ 1,000(8) |
| | Health Care | | | | | |
| | Disability Income | \$ 207,951 | | | | |
| | Life Insurance Benefits | \$ 326,000(3) | | | | |

- (1) In connection with the terms of the related employment agreement with the named executive officer, represents the difference between any disability insurance proceeds and twelve (12) months of the named executive officer's then current salary. The disability income shown reflects the estimated payment for short-term and long-term disability under the Company's benefit plan.
- (2) 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, 2008 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, 2008. For the purpose of this calculation, the Company used \$0.57, which was the closing price per share of the Company's Common Stock on the NYSE Amex (formerly the American Stock Exchange) on the last business day of the fiscal year.
- (3) Reflects the estimated present value of the proceeds payable to the named executive officer's beneficiaries upon his or her death.
- (4) In connection with the terms of the related employment agreement with the named executive officer, represents the difference between any disability insurance proceeds 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.
- (5) 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 age 65.
- (6) Represents 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.
- (7) 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.
- (8) 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, 2008 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, 2008 and scheduled to vest as of December 31, 2009. For the purpose of this calculation, the Company used \$0.57, which was the closing price per share of the Company's Common Stock on the NYSE Amex (formerly the American Stock Exchange) on the last business day of the fiscal year.

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. His employment agreement originally included a three-year term, was subsequently amended to include another three-year term expiring in August 2008 and another one-year term expiring in August 2009. As of December 31, 2008, his employment called for a base salary of \$370,000 per year, 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 calls for a base salary of \$362,000 per year as of December 31, 2008 with 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 vest 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 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 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, 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. 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, 2008 called for a base salary of \$305,000 per year with 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 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. Trân 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, 2008 was \$243,000, 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 \$250,000 per year as of December 31, 2008, with 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 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, 2008 was \$221,000 per year, 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. 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) have each entered into a consulting agreement with the Company. Dr. Lynch receives a consulting fee of \$65,000 per year and Dr. Cotman receives a consulting fee of \$23,000 per year. The term of each consulting agreement commenced in November 1987 and will continue until terminated by the respective parties thereto. The consulting agreements obligate the respective consultants to make themselves 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 2008, each non-employee director was entitled to receive \$4,000 at each Board of Directors meeting attended. The above amount is reduced by one-half for Board of Directors meetings that are attended by telephone. Also, the Chairman of the Compensation Committee, the Governance and Nominations Committee and the Research and Development Committee receives \$2,000 for each committee meeting attended and other members of the respective committees receive \$1,000 for each committee meeting attended. The Chairman of the Audit Committee receives \$3,000 for each committee meeting attended and the remaining members of the Audit Committee receive \$1,000 for each committee meeting attended.

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, during the year ended December 31, 2008, each non-employee director was granted options to purchase 30,000 shares of common stock on the date of the first meeting of the Board of Directors for the year pursuant to the terms of the automatic annual option grants provided in the 2006 Stock Incentive Plan. These nonqualified options 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 non-employee directors were not granted options on the date of the first meeting of the Board of Directors in 2009 given that there were not sufficient options available for grant on such date. The Board intends to grant these options at the next scheduled meeting of the Board of Directors in June 2009, subject to approval by the stockholders of the proposed increase in shares authorized for issuance under the Company's 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, 2008, 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, 2008. 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 | \$ 17,000 | \$ 21,623(3) | | \$ 38,623 |
| John F. Benedik, CPA | \$ 31,000 | \$ 22,724(4) | | \$ 53,724 |
| Charles J. Casamento | \$ 22,000 | \$ 21,623(5) | | \$ 43,623 |
| Carl W. Cotman, Ph.D. | \$ 20,000 | \$ 21,623(6) | \$ 23,000 | \$ 64,623 |
| Peter F. Drake, Ph.D. | \$ 23,000 | \$ 21,623(7) | | \$ 44,623 |
| M. Ross Johnson, Ph.D. | \$ 27,000 | \$ 21,623(8) | | \$ 48,623 |
| Gary D. Tollefson, M.D., Ph.D. | \$ 15,000 | \$ 21,623(9) | \$ 72,000 | \$ 108,623 |

- (1) Amounts represent the dollar amount recognized for financial statement reporting purposes for the fiscal year ended December 31, 2008, in accordance with FAS 123(R) and may include amounts from awards granted prior to 2008. 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, 2008, included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission on April 15, 2009.
- (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 226,000 option awards outstanding as of December 31, 2008.
- (4) Mr. Benedik had an aggregate of 85,000 option awards outstanding as of December 31, 2008.
- (5) Mr. Casamento had an aggregate of 240,709 option awards outstanding as of December 31, 2008.
- (6) Dr. Cotman had an aggregate of 203,000 option awards outstanding as of December 31, 2008.
- (7) Dr. Drake had an aggregate of 160,000 option awards outstanding as of December 31, 2008.
- (8) Dr. Johnson had an aggregate of 230,000 option awards outstanding as of December 31, 2008.
- (9) Dr. Tollefson had an aggregate of 285,000 option awards outstanding as of December 31, 2008.

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, 2008 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, 2008, 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, 2008 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 (or a 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 April 23, 2009, 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. Allnut | 263,167(3) | * |
| John F. Benedik | 86,667(4) | * |
| Charles J. Casamento | 227,376(5) | * |
| James H. Coleman | 992,185(6) | 2.0 |
| Carl W. Cotman, Ph.D. | 249,167(7) | * |
| Peter F. Drake, Ph.D. | 181,667(8) | * |
| M. Ross Johnson, Ph.D. | 231,667(9) | * |
| Maria S. Messinger, CPA | 584,886(10) | 1.2 |
| Roger G. Stoll, Ph.D. | 2,438,879(11) | 4.8 |
| Gary D. Tollefson, M.D., Ph.D. | 286,667(12) | * |
| Pierre V. Trân, M.D., M.M.M. | 475,833(13) | * |
| Mark A. Varney, Ph.D. | 1,013,334(14) | 2.0 |
| All executive officers and directors as a group (13 persons) | 7,502,941(15) | 13.5 |

* 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 April 23, 2009 is based upon 48,615,209 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 April 23, 2009 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 197,667 shares that may be purchased upon exercise of options within 60 days of April 23, 2009.
- (4) Consists of 56,667 shares that may be purchased upon exercise of options within 60 days of April 23, 2009.
- (5) Includes 212,376 shares that may be purchased upon exercise of options within 60 days of April 23, 2009. Excludes 17,653 shares held by Mr. Casamento in a trust over which he does not exercise control.
- (6) Includes 784,598 shares that may be purchased upon exercise of options within 60 days of April 23, 2009. Beneficial ownership of these shares is shared and held by the James Henry and Nancy Irene Coleman III Revocable Trust.
- (7) Includes 174,667 shares that may be purchased upon exercise of options within 60 days of April 23, 2009.
- (8) Includes 131,667 shares that may be purchased upon exercise of options within 60 days of April 23, 2009.
- (9) Includes 201,667 shares that may be purchased upon exercise of options within 60 days of April 23, 2009.

- (10) Includes 535,822 shares that may be purchased upon exercise of options within 60 days of April 23, 2009.
 - (11) Includes 2,338,879 shares that may be purchased upon exercise of options within 60 days of April 23, 2009.
 - (12) Includes 2,000 shares held by Dr. Tollefson's spouse and 256,667 shares that may be purchased upon exercise of options within 60 days of April 23, 2009.
 - (13) Includes 445,833 shares that may be purchased upon exercise of options within 60 days of April 23, 2009.
 - (14) Includes 983,334 shares that may be purchased upon exercise of options within 60 days of April 23, 2009.
 - (15) Includes 6,758,178 shares that may be purchased upon exercise of options within 60 days of April 23, 2009.
- 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 3,000,000

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. No shares have been granted under the 2006 Stock Incentive Plan during 2009, given the small number of shares that remain authorized for issuance thereunder. 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 4,363,799 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 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 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, 2009, 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 4,363,799 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 4,363,799 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 7,363,799, and the maximum number of shares of Common Stock that may be issued pursuant to incentive stock options shall be increased to 7,363,799. 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, 2008, 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. However, the non-employee directors were not granted options on the date of the first meeting of the Board of Directors in 2009 given that there were not sufficient options available for grant on such date. The Board intends to grant these options at the next scheduled meeting of the Board of Directors in June 2009, subject to approval by the stockholders of the proposed increase in shares authorized for issuance under the Company's 2006 Stock Incentive Plan. 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 4,363,799 to 7,363,799 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 3,000,000 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 3,000,000 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, 2008. Our only stockholder approved equity compensation plans consist of the 1996 Stock Incentive Plan (that expired in October 2006) and the 2006 Stock Incentive Plan. Following the expiration of the 1996 Stock Incentive Plan, all subsequently granted stock options were and will be issued from the 2006 Stock Incentive Plan.

| Plan Category | (a) Number of securities to be issued upon exercise of outstanding options, warrants and rights | (b) Weighted-average exercise price of outstanding options, warrants and rights | (c) Number of securities remaining available for issuance under equity compensation plans (excluding securities reflected in column (a)) |
|--|---|---|--|
| Equity compensation plans approved by security holders | 11,204,319 | 1.70 | 112,386 |
| Equity compensation plans not approved by security holders | 350,000(1) | 2.59 | |
| Total | 11,554,319 | \$ 1.73 | 112,386 |

- (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 have a ten-year term and vest 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 Head 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 vest 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, 2009. 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, 2009. 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, 2009.

Audit Fees

The aggregate fees of Haskell & White LLP, the Company's independent registered public accountants, for audit services totaled approximately \$119,000 and \$310,000 for the fiscal years ended December 31, 2008 and 2007, respectively, including fees associated with the reviews of the Company's quarterly reports on Form 10-Q and the annual audit, including procedures related to the Company's assessment of its system of internal controls as of December 31, 2007 as required under Section 404 of the Sarbanes-Oxley Act of 2002.

Audit-Related Fees

The aggregate fees of Haskell & White LLP for audit-related fees totaled approximately \$10,500 and \$51,000, respectively for the fiscal years ended December 31, 2008 and 2007, 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 \$10,200 and \$9,300 for the fiscal years ended December 31, 2008 and 2007, respectively.

All Other Fees

There were no other fees for services provided by Haskell & White LLP for the fiscal years ended December 31, 2008 or 2007.

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, 2008 and 2007 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 2010 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 January 7, 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 2010 Annual Meeting of Stockholders, a stockholder proposal not previously submitted for the Company's proxy statement may be submitted until March 23, 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, 2008, all of the Company's officers, directors and ten-percent stockholders complied with all applicable Section 16(a) filing requirements.

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, 2008. 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

May 7, 2009

CORTEX PHARMACEUTICALS, INC.

PROXY SOLICITED BY BOARD OF DIRECTORS

Roger G. Stoll, Ph.D., with full power of substitution, is hereby appointed proxy to vote the stock of the undersigned in Cortex Pharmaceuticals, Inc. at the Annual Meeting of Stockholders on June 5, 2009, and at any postponement and adjournment thereof, to be held at the Hyatt Regency Irvine, 17900 Jamboree Road, Irvine, California 92614, at 10:30 a.m. Pacific Daylight Time.

Management recommends that you vote FOR Proposals 1, 2 and 3.

1. PROPOSAL 1 ELECTION OF DIRECTORS.

“ **FOR** all Nominees listed below
(except as indicated to the

contrary below)

“ **WITHHOLD AUTHORITY** to
vote for all Nominees

listed below

Robert F. Allnutt, John F. Benedik, Charles J. Casamento, Carl W. Cotman, Ph.D., Peter F. Drake, Ph.D., M. Ross Johnson, Ph.D., Roger G. Stoll, Ph.D. and Mark A. Varney, Ph.D.

INSTRUCTION: To withhold authority to vote for any individual Nominee, write that Nominee’s name in the space provided below.

2. PROPOSAL 2 APPROVAL OF AMENDMENT TO THE COMPANY’S 2006 STOCK INCENTIVE PLAN TO INCREASE THE NUMBER OF SHARES OF COMMON STOCK THEREUNDER BY 3,000,000 SHARES.

“ **FOR**

“ **AGAINST**

“ **ABSTAIN**

3. PROPOSAL 3 RATIFICATION OF THE APPOINTMENT OF HASKELL & WHITE LLP AS INDEPENDENT REGISTERED PUBLIC ACCOUNTANTS OF THE COMPANY FOR THE FISCAL YEAR ENDING DECEMBER 31, 2009.

“ **FOR**

“ **AGAINST**

“ **ABSTAIN**

In his discretion, the proxy is authorized to vote upon such other business as may properly come before the meeting or any adjournment thereof, including procedural and other matters relating to the conduct of the meeting.

[Front of Proxy Card]

THIS PROXY WILL BE VOTED AS DIRECTED. UNLESS OTHERWISE DIRECTED, THIS PROXY WILL BE VOTED FOR THE ELECTION OF THE EIGHT DIRECTOR NOMINEES LISTED ABOVE, FOR PROPOSAL 2, AND FOR PROPOSAL 3.

Please sign exactly as name appears hereon.

Date: _____, 2009

When shares are held by joint tenants, both should sign. When signing as attorney, executor, administrator, trustee or guardian, please give full title as such. If a corporation, please sign in full corporate name by President or other authorized officer. If a partnership, please sign in partnership name by authorized person.

PLEASE IMMEDIATELY DATE, SIGN AND RETURN THIS CARD IN THE ENCLOSED ENVELOPE. THANK YOU FOR YOUR PROMPT ATTENTION TO THIS IMPORTANT MATTER.

[Back of Proxy Card]