

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC. 20549

SCHEDULE 14A
(Rule 14A-101)

INFORMATION REQUIRED IN PROXY STATEMENT
SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of
the Securities Exchange Act of 1934

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

Preliminary Proxy Statement

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Pursuant to Rule 14a-11(c) or Rule 14a-12

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

LEXICON PHARMACEUTICALS, INC.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

No fee required.

Fee computed **ON** table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies: N/A

(2) Aggregate number of securities to which transaction applies: N/A

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined): N/A

(4) Proposed maximum aggregate value of transaction: N/A

(5) Total fee paid: \$0

Fee paid previously with preliminary materials: N/A

Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

(1) Amount Previously Paid:

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

(3) Filing Party:

(4) Date Filed



March 14, 2008

TO OUR STOCKHOLDERS:

I am pleased to invite you to attend the 2008 annual meeting of stockholders of Lexicon Pharmaceuticals, Inc. to be held on Wednesday, April 23, 2008 at 1:30 p.m., local time, at The Marriott Woodlands Waterway Hotel and Convention Center, 1601 Lake Robbins Drive, The Woodlands, Texas.

Your vote is important, regardless of the number of shares that you hold. Whether or not you plan to attend the annual meeting, I hope you will vote as soon as possible, either electronically on the Internet, by telephone or by signing and returning the enclosed proxy card. Your proxy will not be used if you are present at the annual meeting and prefer to vote in person or if you revoke your proxy.

Thank you for your ongoing support of and continued interest in Lexicon Pharmaceuticals. We look forward to seeing you at the annual meeting.

Sincerely,

/s/ Arthur T. Sands, M.D., Ph.D.

Arthur T. Sands, M.D., Ph.D.
President and Chief Executive Officer

LEXICON PHARMACEUTICALS, INC.
8800 Technology Forest Place
The Woodlands, Texas 77381
(281) 863-3000

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD APRIL 23, 2008

TO OUR STOCKHOLDERS:

The annual meeting of stockholders of Lexicon Pharmaceuticals, Inc. will be held on Wednesday, April 23, 2008 at 1:30 p.m., local time, at The Marriott Woodlands Waterway Hotel and Convention Center, 1601 Lake Robbins Drive, The Woodlands, Texas, to:

- elect four Class II directors;
- ratify and approve the appointment of Ernst & Young LLP as our independent auditors for the fiscal year ending December 31, 2008; and
- act on any other business that properly comes before the annual meeting.

You are entitled to vote at the annual meeting only if you are the record owner of shares of our common stock at the close of business on February 26, 2008.

It is important that your shares be represented at the annual meeting whether or not you plan to attend. **Please cast your vote electronically on the Internet, by telephone or by signing and returning the enclosed proxy card as promptly as possible.** If you are present at the annual meeting, and wish to do so, you may revoke the proxy and vote in person.

By order of the board of directors,

/s/ Jeffrey L. Wade

Jeffrey L. Wade
Secretary

The Woodlands, Texas
March 14, 2008

PROXY STATEMENT
FOR
ANNUAL MEETING OF STOCKHOLDERS

To Be Held April 23, 2008

GENERAL INFORMATION

Purpose of this Proxy Statement

We have prepared this proxy statement to solicit proxies on behalf of our board of directors for use at our 2008 annual meeting of stockholders and any adjournment or postponement of such meeting.

Notice of Internet Availability of Proxy Materials

As permitted by rules recently adopted by the Securities and Exchange Commission, we have elected to provide access to our proxy materials over the Internet. Accordingly, on or about March 14, 2008, we are mailing to our stockholders a notice containing instructions on how to access our proxy materials, including our proxy statement and annual report, and vote electronically over the Internet. The notice also provides instructions on how stockholders may request a paper copy of our proxy materials free of charge. Our proxy materials may be accessed by stockholders at any time after the date of mailing of the notice.

Time and Place of Annual Meeting

The annual meeting will be held on Wednesday, April 23, 2008 at 1:30 p.m., local time, at The Marriott Woodlands Waterway Hotel and Convention Center, 1601 Lake Robbins Drive, The Woodlands, Texas.

Matters to Be Considered at the Annual Meeting

At the annual meeting, our stockholders will be asked to consider and act upon the following matters:

- the election of four Class II directors; and
- a proposal to ratify and approve the appointment of Ernst & Young LLP as our independent auditors for the fiscal year ending December 31, 2008.

Our board of directors does not intend to bring any other matters before the annual meeting and has not been informed that any other matters are to be presented by others. Our bylaws contain several requirements that must be satisfied in order for any of our stockholders to bring a proposal before one of our annual meetings, including a requirement of delivering proper advance notice to us. Stockholders are advised to review our bylaws if they intend to present a proposal at any of our annual meetings.

Record Date for Determining Entitlement to Vote

You are entitled to vote at the annual meeting if you were the record owner of shares of our common stock as of the close of business on February 26, 2008, the record date for the annual meeting established by our board of directors.

How to Vote Your Shares

You may vote in person at the annual meeting or by proxy. To ensure that your shares are represented at the annual meeting, we recommend you vote by proxy even if you plan to attend the annual meeting in person. Even if you vote by proxy, if you wish, you can revoke your proxy and vote in person at the annual meeting. If you want to vote at the annual meeting but your shares are held by an intermediary, such as a broker or bank, you will need to obtain from the intermediary either proof of your ownership of such shares as of February 26, 2008 or a proxy from such intermediary authorizing you to vote your shares at the meeting.

You may receive more than one proxy depending on how you hold your shares. If you hold your shares through an intermediary, such as a broker or bank, you may receive materials from them asking you how you want your shares to be voted at the annual meeting.

Voting by Proxy

By Internet or Telephone. You may vote electronically on the Internet or by telephone by following the instructions contained on the notice of Internet availability of our proxy materials. If you hold your shares through an intermediary, such as a broker or bank, please follow the voting instructions contained on the voting card used by the intermediary.

By Mail. If you request a paper copy of our proxy materials, you may vote by mail by completing, dating and signing the proxy card provided and mailing it in the pre-addressed envelope enclosed with the paper copy of our proxy materials.

Quorum

We must have a quorum to conduct any business at the annual meeting. This means that at least a majority of our outstanding shares eligible to vote at the annual meeting must be represented at the annual meeting, either in person or by proxy. Abstentions are counted for purposes of determining whether a quorum is present. In addition, shares of our common stock held by intermediaries that are voted for at least one matter at the annual meeting will be counted as being present for purposes of determining a quorum for all matters, even if the beneficial owner's discretion has been withheld for voting on some or all other matters (commonly referred to as a "broker non-vote").

Outstanding Shares

On the record date, we had 136,795,346 shares of our common stock outstanding. If you were the record owner of shares of our common stock on the record date, you will be entitled to one vote for each share of stock that you own on each matter that is called to vote at the annual meeting.

Vote Needed to Approve Proposals

Our Class II directors will be elected by a plurality vote. As a result, if a quorum is present at the annual meeting, the four persons receiving the greatest number of votes will be elected to serve as our Class II directors. Withholding authority to vote for a director nominee will not affect the outcome of the election of directors.

The ratification and approval of the appointment of Ernst & Young LLP as our independent auditors for the year ending December 31, 2008 will require the affirmative vote of a majority of the votes cast with respect to such matter. Any other business that may properly come before the annual meeting for a vote will require the affirmative vote of a majority of the votes cast with respect to such matter unless a greater vote is required by law or our charter or bylaws. On any such matter, any abstention from voting or broker non-vote will not count as a vote for or against these proposals and will not be considered in calculating the number of votes necessary for their approval.

How Your Proxy Will Be Voted

Giving us your proxy means that you are authorizing us to vote your shares at the annual meeting in the manner you direct. You may vote for our nominees for election as Class II directors or withhold your vote for any one or more of those nominees. You may vote for or against the appointment of Ernst & Young LLP as our independent auditors for the year ending December 31, 2008 or abstain from voting on that proposal.

If you vote by proxy and do not withhold authority to vote for the election of our nominees for election as Class II directors, all of your shares will be voted for the election of those nominees. If you withhold authority to vote for one or more of our nominees for election as Class II directors, none of your shares will be voted for those nominees.

If any of our nominees for election as Class II directors become unavailable for any reason before the election, we may reduce the number of directors serving on our board of directors, or our board of directors may designate substitute nominees, as necessary. We have no reason to believe that any of our nominees for election as Class II directors will be unavailable. If our board of directors designates any substitute nominees, the persons receiving your proxy will vote your shares for such substitute(s) if they are instructed to do so by our board of directors or, in the absence of any such instructions, in accordance with their own best judgment.

If you vote by proxy but do not specify how you want your shares voted, your shares will be voted in favor of our nominees for election as Class II directors and in favor of the appointment of Ernst & Young LLP as our independent auditors for the year ending December 31, 2008.

If you vote by proxy and any additional business properly comes before the annual meeting, the persons receiving your proxy will vote your shares on those matters as instructed by our board of directors or, in the absence of any such instructions, in accordance with their own best judgment. As of the date of this proxy statement, we are not aware of any other matter to be raised at the annual meeting.

How to Revoke Your Proxy

You may revoke your proxy at any time before your shares are voted by providing our corporate secretary with either a new proxy with a later date or a written notice of your desire to revoke your proxy at the following address:

Lexicon Pharmaceuticals, Inc.
8800 Technology Forest Place
The Woodlands, Texas 77381
Attention: Corporate Secretary

You may also revoke your proxy at any time prior to your shares having been voted by attending the annual meeting in person and notifying the inspector of election of your desire to revoke your proxy. Your proxy will not automatically be revoked merely because you attend the annual meeting.

Inspector of Election

Broadridge Financial Solutions, Inc. will count votes and provide a representative who will serve as an inspector of election for the annual meeting.

List of Stockholders Entitled to Vote

A list of our stockholders entitled to vote at the annual meeting will be available for inspection at the annual meeting. The stockholder list will also be available for inspection for ten days prior to the annual meeting at our corporate offices located at 8800 Technology Forest Place, The Woodlands, Texas. Any inspection of this list at our offices will need to be conducted during ordinary business hours. If you wish to conduct an inspection of the stockholder list, we request that you please contact our corporate secretary before coming to our offices.

Solicitation of Proxies and Expenses

We are asking for your proxy on behalf of our board of directors. We will bear the entire cost of preparing, printing and soliciting proxies. We will send notices of Internet availability of proxy materials and, if requested, paper copies of our proxy materials to all of our stockholders of record as of the record date and to all intermediaries, such as brokers and banks, that held any of our shares on that date on behalf of others. These intermediaries will then forward the notices and, if requested, paper copies of our proxy materials to the beneficial owners of our shares, and we will reimburse them for their reasonable out-of-pocket expenses for forwarding such materials. Our directors, officers and employees may solicit proxies by mail, in person or by telephone or other electronic communication. Our directors, officers and employees will not receive additional compensation for their solicitation efforts, but they will be reimbursed for any out-of-pocket expenses they incur.

Householding

As permitted by rules adopted by the Securities and Exchange Commission, we are delivering a single notice of Internet availability of proxy materials, annual report and proxy statement, as applicable, to any household at which two or more stockholders reside if we believe the stockholders are members of the same family, unless otherwise instructed by one or more of the stockholders. We will promptly deliver separate copies of these documents upon the written or oral request of any stockholder at a shared address to which a single copy of the documents were delivered.

If your household received a single set of any of these documents, but you would prefer to receive your own copy, or if you share an address with another stockholder and together both of you would like to receive only a single set of these documents, please follow these instructions:

- If your shares are registered in your own name, please contact our transfer agent, BNY Mellon Shareowner Services, and inform them of your request by calling them at (800) 635-9270 or writing them at 480 Washington Boulevard., Jersey City, New Jersey 07310. If you would like to request any additional copies of our proxy materials, you will also need to contact Broadridge and inform them of your request by calling them at (800) 542-1061 or writing them at Householding Department, 51 Mercedes Way, Edgewood, New York 11717.
- If an intermediary, such as a broker or bank, holds your shares, please contact Broadridge and inform them of your request by calling them at (800) 542-1061 or writing them at Householding Department, 51 Mercedes Way, Edgewood, New York 11717. Be sure to include your name, the name of your brokerage firm and your account number.

PROPOSAL NUMBER 1: ELECTION OF DIRECTORS

Our board of directors, which currently has ten members, is divided or "classified" into three classes. Directors in each class are elected to hold office for a term ending on the date of the third annual meeting following the annual meeting at which they were elected. The current term of our Class II directors will expire at this annual meeting. The current terms of our Class III and Class I directors will expire at our 2009 and 2010 annual meetings of stockholders, respectively.

The board of directors has nominated and urges you to vote for the election of the individuals identified below, who have been nominated to serve as Class II directors until our 2011 annual meeting of stockholders or until their successors are duly elected and qualified. Each of these individuals is a member of our present board of directors. Your signed proxy will be voted for the nominees named below unless you specifically indicate on the proxy that you are withholding your vote.

Nominees for Class II Directors

The following individuals are nominated for election as Class II directors:

Name	Age	Position with the Company	Year First Became a Director
Samuel L. Barker, Ph.D.	65	Chairman of the Board of Directors (Class II)	2000
Christopher J. Sobecki	49	Director (Class II)	2007
Judith L. Swain, M.D.	59	Director (Class II)	2007
Kathleen M. Wiltsey	52	Director (Class II)	2007

Samuel L. Barker, Ph.D. has been a director since March 2000 and became chairman of our board of directors in March 2005. In March 2001, Dr. Barker co-founded Clearview Projects, Inc., a provider of partnering and transaction services to biopharmaceutical companies, and served as its president and chief executive officer from July 2003 until November 2004. Dr. Barker served in a series of leadership positions at Bristol-Myers Squibb Company until his retirement in 1999. His positions at Bristol-Myers Squibb included service as executive vice president, Worldwide Franchise Management and Strategy during 1998; president, United States Pharmaceuticals from 1992 to 1997; and president, Bristol-Myers Squibb Intercontinental Commercial Operations from 1990 to 1992. Prior to 1990, Dr. Barker held executive positions in research and development, manufacturing, finance, business development and sales and marketing at Squibb Pharmaceuticals. Dr. Barker currently serves as a director of AtheroGenics, Inc. and Cadence Pharmaceuticals, Inc. Dr. Barker received his B.S. from Henderson State College, his M.S. from the University of Arkansas and his Ph.D. from Purdue University.

Christopher J. Sobecki has been a director since August 2007 and is a managing director of The Invus Group, LLC, which he joined in 1989. Mr. Sobecki is currently a director of Weight Watchers International, Inc. and NitroMed, Inc., as well as a number of private companies in which Invus has invested. He holds a B.S. in industrial engineering from Purdue University and an M.B.A. from Harvard University. Mr. Sobecki is a designee of Invus, L.P. pursuant to our stockholders' agreement with Invus described under the heading "Transactions with Related Persons — Arrangements with Invus."

Judith L. Swain, M.D. has been a director since September 2007. Dr. Swain is the executive director of the Singapore Institute for Clinical Sciences within A*STAR, and the Lien Chow Professor of Medicine at the National University of Singapore. From 2005 to 2006, she was the dean for translational medicine at the University of California, San Diego, where she continues to maintain an appointment as an adjunct professor of medicine. Dr. Swain served as chair of the Department of Medicine at Stanford University from 1997 to 2005, and previously served on the medical faculties of the University of Pennsylvania and Duke University. Dr. Swain is currently a director of the Burroughs Wellcome Fund, a member of the Academic Research Council in Singapore and on the Scientific Advisory Board of the Doris Duke Charitable Foundation. She has served in a number of national and international leadership roles and as a director or member of the scientific advisory boards for a number of biomedical technology companies and is co-founder of Synecor, LLC. Dr. Swain received her B.S. from the University of California, Los Angeles and her M.D. from the University of California, San Diego.

Kathleen M. Wiltsey has been a director since February 2007. From 1984 through 1998, Ms. Wiltsey served in a series of senior marketing and business development positions at Amgen Inc., including as co-product development team leader and marketing director for EPOGEN[®] and as vice president with responsibility for Amgen's product licensing function. From May to October 2006, Ms. Wiltsey served the X Prize Foundation as executive director for the development and launch of the Archon X PRIZE for Genomics, a global technology competition to dramatically reduce the cost of sequencing human genomes and accelerate personalized medicine. Ms. Wiltsey has served in a variety of business and corporate development advisory roles for numerous biotechnology companies and is currently a director of Sequenom, Inc. and president of the board of The Associates of the California Institute of Technology. She holds a B.S. from the Colorado School of Mines and an M.B.A. from Harvard University.

The Board of Directors recommends that stockholders vote "FOR" the foregoing nominees for election as Class II directors.

Current and Continuing Directors

The current directors of the Company are identified below:

Name	Age	Position with the Company
Arthur T. Sands, M.D., Ph.D.	46	President and Chief Executive Officer and Director (Class III)
Samuel L. Barker, Ph.D. ⁽¹⁾	65	Chairman of the Board of Directors (Class II)
Philippe J. Amouyal ⁽²⁾	49	Director (Class III)
Raymond Debbane ⁽³⁾	53	Director (Class I)
Robert J. Lefkowitz, M.D. ⁽³⁾	64	Director (Class I)
Alan S. Nies, M.D. ⁽²⁾	70	Director (Class I)
Frank P. Palantoni ⁽¹⁾⁽²⁾	50	Director (Class III)
Christopher J. Sobecki	49	Director (Class II)
Judith L. Swain, M.D. ⁽³⁾	59	Director (Class II)
Kathleen M. Wiltsey ⁽¹⁾	52	Director (Class II)

(1) Member of the Audit Committee

(2) Member of the Compensation Committee

(3) Member of the Corporate Governance Committee

Information regarding the business experience of Dr. Barker, Mr. Sobecki, Dr. Swain and Ms. Wiltsey is set forth above under the heading "— Nominees for Class II Directors."

Arthur T. Sands, M.D., Ph.D. co-founded our company and has been our president and chief executive officer and a director since September 1995. At Lexicon, Dr. Sands pioneered the development of large-scale gene knockout technology for use in drug discovery. Before founding Lexicon, Dr. Sands served as an American Cancer Society postdoctoral fellow in the Department of Human and Molecular Genetics at Baylor College of Medicine. Dr. Sands is a member of the board of directors of the Texas Institute for Genomic Medicine. He received his B.A. in economics and political science from Yale University and his M.D. and Ph.D. from Baylor College of Medicine.

Philippe J. Amouyal has been a director since August 2007 and is a managing director of The Invus Group, LLC, a position he has held since 1999. Previously, Mr. Amouyal was a vice president and director of The Boston Consulting Group, Inc. in Boston, Massachusetts, where he coordinated the global technology and electronics practice through most of the 1990s. Mr. Amouyal is a director of Weight Watchers International, Inc., as well as a number of private companies in which Invus has invested. He holds an M.S. in engineering and a DEA in management from Ecole Centrale de Paris and was a research fellow at the Center for Policy Alternatives of the Massachusetts Institute of Technology. Mr. Amouyal is a designee of Invus, L.P. pursuant to our stockholders' agreement with Invus described under the heading "Transactions with Related Persons — Arrangements with Invus."

Raymond Debbane has been a director since August 2007. Mr. Debbane is president and chief executive officer of The Invus Group, LLC, which he founded in New York in 1985 as the exclusive investment advisor of Benelux-based Artal Group S.A. In 1999, Artal became the controlling shareholder of Weight Watchers International, Inc., for which Mr. Debbane serves as chairman of the board of directors. He also serves as chairman or director of a number of private companies in which Invus and Artal Group S.A. have invested. Before founding The Invus Group, Mr. Debbane was a manager in the Paris office of The Boston Consulting Group, Inc., where he did consulting work for a number of major European and international companies. Mr. Debbane holds an M.B.A. from Stanford University, an M.S. in food science and technology from the University of California at Davis, and a B.S. in agricultural sciences and agricultural engineering from American University of Beirut. Mr. Debbane is a designee of Invus, L.P. pursuant to our stockholders' agreement with Invus described under the heading "Transactions with Related Persons — Arrangements with Invus."

Robert J. Lefkowitz, M.D. has been a director since February 2001 and a consultant to our company since March 2003. Dr. Lefkowitz is the James B. Duke Professor of Medicine, professor of biochemistry and a Howard Hughes Medical Institute investigator at Duke University Medical Center, where he has served on the faculty since 1973. He is a member of the National Academy of Sciences. Dr. Lefkowitz received his B.A. from Columbia University and his M.D. from Columbia University College of Physicians and Surgeons.

Alan S. Nies, M.D. has been a director since November 2003 and chairman of our medical advisory board since March 2003. From 1992 through September 2002, Dr. Nies served in a series of senior management positions at Merck & Co. Inc., most recently as senior vice president, clinical sciences from 1999 to 2002. Prior to joining Merck, Dr. Nies spent fifteen years as professor of medicine and pharmacology and head of the Division of Clinical Pharmacology at the University of Colorado Health Sciences Center. Dr. Nies holds a B.S. from Stanford University and an M.D. from Harvard Medical School.

Frank P. Palantoni has been a director since November 2004. Mr. Palantoni served as chief executive officer of Prestige Brands Holding, Inc. from April to June 2006 and as a director from January to June 2006. From 1998 to 2004, Mr. Palantoni held a variety of senior management positions with Novartis AG, most recently as president and chief executive officer, worldwide of its Gerber Products Company, Novartis Infant and Baby Division. Mr. Palantoni also served as president and chief executive officer for North American operations of Novartis Consumer Health Division from 2000 to 2001. Prior to joining Novartis, he held a series of senior management positions with The Danone Group. He holds a B.S. from Tufts University and an M.B.A. from Columbia University.

PROPOSAL NUMBER 2: RATIFICATION AND APPROVAL OF INDEPENDENT AUDITORS

The board of directors has appointed the firm of Ernst & Young LLP as our independent auditors to make an examination of our accounts for the fiscal year ending December 31, 2008, subject to ratification by our stockholders. Representatives of Ernst & Young LLP, are expected to be present at the annual meeting, will have an opportunity to make a statement if they desire to do so and are expected to be available to respond to appropriate questions.

The Board of Directors recommends that stockholders vote "FOR" ratification and approval of the appointment of Ernst & Young LLP as our independent auditors for the fiscal year ending December 31, 2008.

Compensation of Independent Auditors

The following table presents the estimated aggregate fees billed and to be billed by Ernst & Young LLP for services performed during our last two fiscal years.

	Years Ended December 31,	
	2007	2006
Audit fees ⁽¹⁾	\$ 446,000	\$ 317,500

Audit-related fees ⁽²⁾	22,000	20,500
Tax fees	—	—
All other fees	—	—
	<u>\$ 468,000</u>	<u>\$ 338,000</u>

- (1) “Audit fees” include professional services rendered for (i) the audit of our management’s assessment of effective internal control over financial reporting, as required by the Sarbanes-Oxley Act of 2002, for the fiscal years ended December 31, 2006 and 2007, (ii) the audit of our annual financial statements for the fiscal years ended December 31, 2006 and 2007, (iii) the reviews of the financial statements included in our quarterly reports on Form 10-Q for such years and (iv) the issuance of consents and other matters relating to registration statements filed by us.
- (2) “Audit-related fees” include assurance or related services reasonably related to our audit for the fiscal years ended December 31, 2006 and 2007. These fees related to the audit of the financial statements of our 401(k) plan and consultation concerning financial accounting and reporting standards.

The audit committee reviewed and approved all the fees described above. As part of its duties, the audit committee has determined that the provision by Ernst & Young LLP of the non-audit services described above is compatible with maintaining the auditors’ independence.

Audit Committee Pre-Approval Policies and Procedures

The audit committee has adopted policies and procedures requiring the pre-approval of all audit and non-audit services rendered by our independent auditors, either as part of the audit committee’s approval of the scope of the engagement of the independent auditors or on a case-by-case basis before the independent auditors are engaged to provide each service. The audit committee’s pre-approval authority may be delegated to one or more of its members, but any pre-approval decision must be reported to the full audit committee at its next regularly scheduled meeting.

Audit Committee Report

The role of the audit committee is to assist the board of directors in its oversight of our financial reporting process. The audit committee reviews our internal accounting procedures and consults with, and reviews the services provided by, our independent auditors.

The management of our company is responsible for the preparation, presentation and integrity of our financial statements, our accounting and financial reporting principles and internal controls and procedures designed to assure compliance with the accounting standards and applicable laws and regulations. Our independent auditors are responsible for auditing our financial statements and expressing an opinion as to their conformity with generally accepted accounting principles.

In the performance of its oversight function, the audit committee has reviewed and discussed the audited financial statements with management. The committee has also discussed with our independent auditors the matters required to be discussed by Statement on Auditing Standards No. 61, *Communication with Audit Committees*, as currently in effect. Finally, the committee has received the written disclosures and the letter from our independent auditors required by Independence Standards Board Standard No. 1, *Independence Discussions with Audit Committees*, as currently in effect, and has discussed with our independent auditors their independence.

Based upon the review and discussions described in this report, and subject to the limitations on the role and responsibilities of the audit committee referred to in the audit committee charter, the committee recommended to the board of directors that the audited financial statements be included in our annual report on Form 10-K for the year ended December 31, 2007.

Audit Committee

Samuel L. Barker, Ph.D. (Chairman)
Frank P. Palantoni
Kathleen M. Wiltsey

The foregoing audit committee report shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference by any general statement incorporating by reference this proxy statement into any filing under the Securities Act of 1933 or under the Securities Exchange Act of 1934, except to the extent that we specifically incorporate this compensation committee report by reference, and shall not otherwise be deemed filed under such acts.

STOCK OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table presents information regarding the beneficial ownership of our common stock as of February 26, 2008 by:

- each of the individuals listed in “Executive and Director Compensation — Summary Compensation Table”;
- each of our directors;
- each person, or group of affiliated persons, who is known by us to own beneficially five percent or more of our common stock; and
- all current directors and executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission computing the number of shares beneficially owned by a person and the percentage ownership of that person. Shares of common stock under options held by that person that are currently exercisable or exercisable within 60 days of February 26, 2008 are considered outstanding. These shares, however, are not considered outstanding when computing the percentage ownership of each other person.

Except as indicated in the footnotes to this table and pursuant to state community property laws, each stockholder named in the table has sole voting and investment power for the shares shown as beneficially owned by them. Percentage of ownership is based on 136,795,346 shares of common stock outstanding on February 26, 2008. Unless otherwise indicated in the footnotes, the address of each of the individuals named below is: c/o Lexicon Pharmaceuticals, Inc., 8800 Technology Forest Place, The Woodlands, Texas 77381.

	Beneficial Ownership		
	Number of Shares Beneficially Owned	Shares Issuable Pursuant to Options Exercisable within 60 Days of February 26, 2008	Percentage Ownership
Invus, L.P., Invus Public Equities, L.P. and related parties ⁽¹⁾	54,716,094	—	40.0%
Royce & Associates, LLC ⁽²⁾	9,196,977	—	6.7%
Arthur T. Sands, M.D., Ph.D. ⁽³⁾	1,560,162	2,433,815	2.9%
Julia P. Gregory ⁽⁴⁾	55,047	872,732	*
Alan J. Main, Ph.D.	—	571,975	*
Jeffrey L. Wade, J.D.	3,000	884,022	*
Brian P. Zambrowicz, Ph.D.	101,600	1,153,863	*
Samuel L. Barker, Ph.D.	7,000	114,000	*
Philippe J. Amouyal	—	3,500	*
Raymond Debbane ⁽⁵⁾	54,716,094	3,500	40.0%
Robert J. Lefkowitz, M.D.	—	78,000	*
Alan S. Nies, M.D.	5,000	65,000	*
Frank P. Palantoni	—	40,500	*
Christopher J. Sobecki	1,000	3,500	*
Judith L. Swain, M.D.	—	3,500	*
Kathleen M. Wiltsey	—	7,000	*
All directors and executive officers as a group ⁽³⁾⁽⁴⁾⁽⁵⁾ (18 persons)	56,462,103	7,297,149	44.2%

* Represents beneficial ownership of less than 1 percent.

(1) Based upon a Schedule 13D filed with the SEC on June 27, 2007, and amended on August 24 and August 29, 2007, reflecting the beneficial ownership of (a) 50,824,986 shares of our common stock by Invus, L.P., Invus Advisors, L.L.C., Ulys, L.L.C. and Raymond Debbane, each of which may be deemed to have sole voting and investment power with respect to such shares, and (b) 3,891,108 shares of our common stock by Invus Public Equities, L.P., Invus Public Equities Advisors, L.L.C., Ulys, L.L.C. and Mr. Debbane, each of which may be deemed to have sole voting and investment power with respect to such shares. Such shares are subject to certain voting restrictions pursuant to our stockholders’ agreement with Invus, L.P. described under the heading “Transactions with Related Persons — Arrangements with Invus.” The address for Invus, L.P., Invus Advisors, L.L.C., Invus Public Equities, L.P., Invus Public Equities Advisors, L.L.C., Ulys, L.L.C. is 750 Lexington Avenue, 30th Floor, New York, New York 10022. The address for Mr. Debbane is c/o Ulys, L.L.C., 750 Lexington Avenue, 30th Floor, New York, New York 10022.

- (2) Based upon a Schedule 13G filed with the SEC on February 1, 2008, reflecting the beneficial ownership of our common stock by Royce & Associates, LLC. The address for Royce & Associates, LLC is 1414 Avenue of the Americas, New York, New York 10019.
- (3) The number of shares beneficially owned by Dr. Sands includes 60,000 shares held in the name of minor children and 817,500 shares owned by Sands Associates LP. The general partners of Sands Associates LP are ATS Associates, L.L.C., owned by Dr. Sands, and MES Associates, L.L.C., owned by Dr. Sands' wife.
- (4) The number of shares beneficially owned by Ms. Gregory includes 4,847 shares held in the name of dependent children and trusts for their benefit of which she serves as a trustee.
- (5) Based upon a Schedule 13D filed with the SEC on June 27, 2007, and amended on August 24 and August 29, 2007, reflecting the beneficial ownership of our common stock by Mr. Debbane. The address for Mr. Debbane is c/o Ulys, L.L.C., 750 Lexington Avenue, 30th Floor, New York, New York 10022.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors and executive officers, and persons who own more than 10% of our common stock, to file initial reports of ownership and reports of changes in ownership of our common stock with the Securities and Exchange Commission. Directors, executive officers and greater than 10% stockholders are required by Securities and Exchange Commission regulations to furnish us with copies of all such forms that they file.

To our knowledge, based solely on our review of the copies of such reports received by us and on written representations by certain reporting persons that no reports on Form 5 were required, we believe that during the fiscal year ended December 31, 2007, all Section 16(a) filing requirements applicable to our executive officers, directors and 10% stockholders were complied with in a timely manner.

CORPORATE GOVERNANCE

Independence of the Board of Directors

After reviewing all relevant transactions and relationships involving each member of the board of directors (and his or her family), the board of directors has affirmatively determined that Samuel L. Barker, Ph.D., Philippe J. Amouyal, Raymond Debbane, Robert J. Lefkowitz, M.D., Alan S. Nies, M.D., Frank P. Palantoni, Christopher J. Sobocki, Judith L. Swain, M.D. and Kathleen M. Wiltsey, which members constitute a majority of the board of directors, are "independent" in accordance with the applicable listing standards of The Nasdaq Stock Market, Inc. After such review, the board of directors also determined that Barry Mills, J.D., Ph.D. and Clayton S. Rose, who each resigned from our board of directors effective September 30, 2007, were each "independent" in accordance with the applicable listing standards of The Nasdaq Stock Market, Inc. during their service as directors.

In making such determinations, the board of directors considered our consulting agreements with Robert J. Lefkowitz, M.D., under which Dr. Lefkowitz serves as a consultant to us on matters relating to our drug discovery and development efforts, and with Alan S. Nies, M.D., under which Dr. Nies serves as chairman of our medical advisory board.

Board Committees

Audit Committee. Our audit committee has been established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934 and monitors the integrity of our financial statements, reviews our internal accounting procedures and oversees the qualifications, independence and performance of our independent auditors. The audit committee operates pursuant to a charter that was last amended and restated by the board of directors on October 26, 2005, a copy of which appears on our website at www.lexpharma.com under the caption "Investor Relations — Corporate Governance."

The current members of our audit committee are Samuel L. Barker, Ph.D. (chair), Frank P. Palantoni and Kathleen M. Wiltsey. The board of directors, in its business judgment, has determined that Dr. Barker, Mr. Palantoni and Ms. Wiltsey are "independent" in accordance with the applicable listing standards of The Nasdaq Stock Market, Inc. The board of directors, in its business judgment, has also determined that Clayton S. Rose was "independent" in accordance with the applicable listing standards of The Nasdaq Stock Market, Inc. during his service as a member of the audit committee during 2007. The board of directors, in its business judgment, has also determined that Samuel L. Barker, Ph.D. is an "audit committee financial expert" as defined in Item 407(d)(5) of Regulation S-K.

Compensation Committee. Our compensation committee evaluates the performance of management, determines the compensation of our executive officers and reviews general policy relating to compensation and benefits of our employees. The compensation committee also administers the issuance of stock options and other awards under our 2000 Equity Incentive Plan. The compensation committee operates pursuant to a charter that was approved by the board of directors on February 11, 2004, a copy of which appears on our website at www.lexpharma.com under the caption "Investor Relations — Corporate Governance."

The compensation committee may delegate any of its authority to subcommittees consisting of one or more compensation committee members, with all subcommittee decisions being presented to the full compensation committee at its next scheduled meeting. The compensation committee did not delegate any such authority with respect to 2007 compensation matters. The compensation committee may retain compensation consultants or other advisors to assist in its evaluation of executive compensation. Although the compensation committee has engaged consultants to advise the committee on matters relating to executive compensation in prior years, the compensation committee did not engage any consultants with respect to 2007 compensation matters.

The compensation committee meets in connection with most regularly scheduled meetings of the board of directors, and on at least two occasions after the commencement of each year specifically devoted to making compensation decisions regarding the year just ended. In preparation for such decisions, our president and chief executive officer reviews the performance of executive officers other than himself and, in consultation with the compensation committee and at its direction, makes certain recommendations to the compensation committee relating to their compensation. The compensation committee reviews such recommendations and makes changes to such recommendations as it deems appropriate. All executive compensation determinations are made by the compensation committee in the absence of management.

During the meetings at which determinations were made regarding 2006 bonus awards and annual stock option grants and 2007 base salaries and bonus targets, the members of the compensation committee were Clayton S. Rose (chair), Samuel L. Barker, Ph.D., Barry Mills, J.D., Ph.D. and Frank P. Palantoni. Determinations regarding 2007 bonus awards and annual stock option grants and 2008 base salaries and bonus targets were made by the current members of the compensation committee, Mr. Palantoni (chair), Philippe J. Amouyal and Alan S. Nies, M.D. The board of directors, in its business judgment, has determined that Mr. Palantoni, Mr. Amouyal and Dr. Nies are "independent" in accordance with the applicable listing standards of The Nasdaq Stock Market, Inc. In making such determinations, the board of directors considered our consulting agreement with Dr. Nies described under the heading "Corporate Governance — Independence of the Board of Directors." The board of directors, in its business judgment, has also determined that Mr. Rose, Dr. Barker and Dr. Mills were also "independent" in accordance with the applicable listing standards of The Nasdaq Stock Market, Inc. during their service as members of the compensation committee during 2007.

Corporate Governance Committee. Our corporate governance committee identifies individuals qualified to become members of our board of directors, selects candidates or nominees for director positions to be filled by the board of directors or our stockholders and develops appropriate corporate governance principles. The corporate governance committee operates pursuant to a charter that was approved by the board of directors on February 11, 2004, a copy of which appears on our website at www.lexpharma.com under the caption "Investor Relations — Corporate Governance."

The corporate governance committee has not established any specific minimum qualifications for membership on our board of directors. Rather, the committee will generally consider all relevant factors, which may include independence, experience, diversity, leadership qualities and strength of character. The corporate governance committee uses its available network of contacts when compiling a list of potential director candidates and may also engage outside consultants when appropriate. The committee also considers potential director candidates recommended by stockholders and other parties and all potential director candidates are evaluated based on the above criteria. Because the corporate governance committee makes no distinction in its evaluation of candidates based on whether such candidates are recommended by stockholders or other parties, no formal policy or procedure has been established for the consideration of director candidates recommended by stockholders.

Any stockholder wishing to propose a potential director candidate may submit a recommendation in writing within the time frame specified in our bylaws. All such communications should be sent to 8800 Technology Forest Place, The Woodlands, Texas 77381, Attn: Corporate Governance Committee. Submissions should include the full name of the proposed candidate and a detailed description of the candidate's qualifications, business experience and other relevant biographical information.

The current members of the corporate governance committee are Raymond Debbane (chair), Robert J. Lefkowitz, M.D. and Judith L. Swain, M.D. The board of directors, in its business judgment, has determined that Mr. Debbane, Dr. Lefkowitz and Dr. Swain are "independent" in accordance with the applicable listing standards of The Nasdaq Stock Market, Inc. In making such determinations, the board of directors considered our consulting agreement with Dr. Lefkowitz described under the heading "Corporate Governance — Independence of the Board of Directors." The board of directors, in its business judgment, has also determined that Barry Mills, J.D., Ph.D. was also "independent" in accordance with the applicable listing standards of The Nasdaq Stock Market, Inc. during his service as a member of the corporate governance committee during 2007.

Board and Committee Meetings and Attendance in 2007

The board of directors met ten times in 2007 and took certain additional actions by unanimous written consent. The audit committee met five times in 2007 and took certain additional actions by unanimous written consent. The compensation committee met six times in 2007 and took certain additional actions by unanimous written consent. The corporate governance committee met three times in 2007 and took certain additional actions by unanimous written consent. During 2007, none of our incumbent directors attended fewer than 75 percent of the aggregate number of meetings of the board of directors and committees during the period served.

It is our policy to encourage the members of our board of directors to attend all annual meetings of stockholders. Six members of our board of directors attended our 2007 annual meeting of stockholders.

Code of Business Conduct and Ethics

We have adopted a code of business conduct and ethics that applies to all of our directors, officers and employees, the text of which appears on our website at www.lexpharma.com under the caption "Investor Relations — Corporate Governance." We intend to disclose on our website the nature of any amendment to or waiver from our code of business conduct and ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions within four business days following the date of such amendment or waiver. In the case of any such waiver, including an implicit waiver, we also intend to disclose the name of the person to whom the waiver was granted and the date of the waiver. To date, we have not granted any waivers under our code of business conduct and ethics.

Corporate Governance Guidelines

We have adopted corporate governance guidelines, including, among other things, guidelines with respect to the structure of our board of directors, director selection and qualifications, and non-employee director compensation. The text of our corporate governance guidelines appears on our website at www.lexpharma.com under the caption "Investor Relations — Corporate Governance."

Stockholder Communications with the Board of Directors

We believe that our stockholders are currently provided a reasonable means to communicate with our board of directors and individual directors. As a result, our board of directors has not established a formal process for stockholders to send communications to the board of directors or individual directors. However, the corporate governance committee will consider, from time to time, whether adoption of a formal process for such stockholder communications has become necessary or appropriate. Stockholders may send communications to the board of directors or individual directors by mail at 8800 Technology Forest Place, The Woodlands, Texas 77381, Attn: Board of Directors or any individual director.

Compensation Committee Interlocks and Insider Participation

During 2007, Philippe J. Amouyal, Samuel L. Barker, Ph.D., Barry Mills, J.D., Ph.D., Alan S. Nies, M.D., Frank P. Palantoni and Clayton S. Rose served as members of the compensation committee of our board of directors. Mr. Amouyal is a designee of Invus, L.P. pursuant to our stockholders' agreement with Invus described under the heading "Transactions with Related Persons — Arrangements with Invus." During 2007, none of our executive officers served as a member of the board of directors or compensation committee of another entity, one of whose executive officers served as a member of our board of directors or compensation committee.

TRANSACTIONS WITH RELATED PERSONS

Arrangements with Invus

In June 2007, we entered into a securities purchase agreement with Invus, L.P., pursuant to which Invus purchased 50,824,986 shares of our common stock for approximately \$205.4 million in August 2007. This purchase resulted in Invus' ownership of 40% of the post-transaction outstanding shares of our common stock. Pursuant to the securities purchase agreement, Invus also has the right to require us to initiate up to two pro rata rights offerings to our stockholders, which would provide all stockholders with non-transferable rights to acquire shares of our common stock, in an aggregate amount of up to \$344.5 million, less the proceeds of any "qualified offerings" that we may complete in the interim involving the sale of our common stock at prices above \$4.50 per share. Invus may exercise its right to require us to conduct the first rights offering by giving us notice within a period of 90 days beginning on November 28, 2009 (which we refer to as the first rights offering trigger date), although we and Invus may agree to change the first rights offering trigger date to as early as August 28, 2009 with the approval of the members of our board of directors who are not affiliated with Invus. Invus may exercise its right to require us to conduct the second rights offering by giving us notice within a period of 90 days beginning on the date that is 12 months after Invus' exercise of its right to require us to conduct the first rights offering or, if Invus does not exercise its right to require us to conduct the first rights offering, within a period of 90 days beginning on the first anniversary of the first rights offering trigger date. The initial investment and subsequent rights offerings, combined with any qualified offerings, were designed to achieve up to \$550 million in proceeds to us. Invus would participate in each rights offering for up to its pro rata portion of the offering, and would commit to purchase the entire portion of the offering not subscribed for by other stockholders.

Board of Directors. Concurrently with the execution of the securities purchase agreement, we entered into a stockholders' agreement with Invus under which Invus currently has the right to designate three members of our board of directors and pursuant to which Invus has designated Philippe J. Amouyal, Raymond Debbane and Christopher J. Sobecki. Mr. Debbane is president and chief executive officer of The Invus Group, LLC, an affiliate of Invus, and Mr. Amouyal and Mr. Sobecki are each managing directors of The Invus Group, LLC.

From and after August 28, 2008, Invus will have the right to designate the greater of three members or 30% (or the percentage of all the outstanding shares of our common stock owned by Invus and its affiliates, if less than 30%) of all members of our board of directors, rounded up to the nearest whole number of directors. In the event that the number of shares of our common stock owned by Invus and its affiliates ever exceeds 50% of the total number of shares of our common stock then outstanding (not counting for such purpose any shares acquired by Invus from third parties in excess of 40% (or, if higher, its then pro rata amount) of the total number of outstanding shares of common stock, as permitted by the standstill provisions of the stockholders' agreement), from and after that time, Invus will have the right to designate a number of directors equal to the percentage of all the outstanding shares of our common stock owned by Invus and its affiliates (not counting for such purpose any shares acquired by Invus from third parties in excess of 40% (or, if higher, its then pro rata amount) of the total number of outstanding shares of common stock, as permitted by the standstill provisions of the stockholders' agreement), rounded up to the nearest whole number of directors. The directors appointed by Invus have proportionate representation on the compensation committee and corporate governance committee of our board of directors.

Invus' rights with respect to the designation of members of our board of directors and its compensation and corporate governance committees will terminate if the percentage of all the outstanding shares of our common stock owned by Invus and its affiliates falls below 10%. Invus will also have the right to terminate these provisions at any time following the date on which the percentage of all the outstanding shares of our common stock owned by Invus and its affiliates exceeds 50% (not counting for such purpose any shares acquired by Invus and its affiliates from third parties in excess of 40% (or, if higher, its then pro rata amount) of the total number of outstanding shares of our common stock, as permitted by the standstill provisions of the stockholders' agreement).

Preemptive Rights. Invus has preemptive rights under the stockholders' agreement to participate in future equity issuances by us (including any qualified offering), subject to certain exceptions, so as to maintain its then-current percentage ownership of our capital stock. Subject to certain limitations, Invus will be required to exercise its preemptive rights in advance with respect to certain marketed offerings, in which case it will be obligated to buy its pro rata share of the number of shares being offered in such marketed offering, including any over-allotment (or such lesser amount specified in its exercise of such rights), so long as the sale of the shares were priced within a range within 10% above or below the market price on the date we notified Invus of the offering and we met certain other conditions.

The provisions of the stockholders' agreement relating to preemptive rights will terminate on the earlier to occur of August 28, 2017 and the date on which the percentage of all the outstanding shares of our common stock owned by Invus and its affiliates falls below 10%.

Standstill Provisions. Invus is subject to standstill provisions restricting its ability to purchase or otherwise acquire additional shares of common stock from third parties to an amount that would result in its ownership of our common stock not exceeding 49% of the total number of shares outstanding. These standstill provisions will not apply to the acquisitions of securities by way of stock splits, stock dividends, reclassifications, recapitalizations, or other distributions by us, acquisitions contemplated by the securities purchase agreement and the stockholders' agreement, including in the rights offerings and upon Invus' exercise of preemptive rights under the stockholders' agreement.

Except for acquisitions pursuant to the provisions described above, and subject to certain exceptions, Invus has agreed that it will not, and will cause its affiliates not to, without the approval of our unaffiliated board, directly or indirectly:

- solicit proxies to vote any of our voting securities or any voting securities of our subsidiaries;
- submit to our board of directors a written proposal for any merger, recapitalization, reorganization, business combination or other extraordinary transaction involving an acquisition of us or any of our subsidiaries or any of our or our subsidiaries' securities or assets by Invus and its affiliates;
- enter into discussions, negotiations, arrangements or understandings with any third party with respect to any of the foregoing; or
- request us or any of our representatives, directly or indirectly, to amend or waive any of these standstill provisions.

The standstill provisions of the stockholders' agreement will terminate on the earliest to occur of (a) August 28, 2017, (b) the date on which the percentage of all the outstanding shares of our common stock owned by Invus and its affiliates falls below 10%, (c) the date on which the percentage of all of the outstanding shares of our common stock owned by Invus and its affiliates exceeds 50% (not counting for such purpose any shares acquired by Invus from third parties in excess of 40% (or, if higher, its then pro rata amount) of the total number of outstanding shares of common stock, as permitted by the standstill provisions of the stockholders' agreement), (d) the date on which any third party makes a public proposal to acquire (by purchase, exchange, merger or otherwise) assets or business constituting 50% or more of our revenues, net income or assets or 50% of any class of our equity securities of our board of directors recommends or approves, or proposes to recommend or

approve, any such transaction or (e) the date on which any third party acquires beneficial ownership (by purchase, exchange, merger or otherwise) of assets or business constituting 20% or more of our revenues, net income or assets or 20% of any class of our equity securities or our board of directors recommends or approves, or proposes to recommend or approve, any such transaction.

Sales to Third Parties. Subject to certain exceptions, Invus has agreed that neither it nor its affiliates will sell any shares of common stock to third parties that are not affiliated with Invus if, to Invus' knowledge, such transfer would result in any such third party (or any person or group including such third party) owning more than 14.9% of the total number of outstanding shares of our common stock.

The provisions of the stockholders' agreement relating to sales to third parties will terminate on the earliest to occur of (a) August 28, 2017, (b) the date on which the percentage of all the outstanding shares of our common stock owned by Invus and its affiliates falls below 10%, and (c) the date on which the percentage of all the outstanding shares of our common stock owned by Invus and its affiliates exceeds 50% (not counting for such purpose any shares acquired by Invus and its affiliates from third parties in excess of 40% (or, if higher, its then pro rata amount) of the total number of outstanding shares of our common stock, as permitted by the standstill provisions of the stockholders' agreement).

Voting of Shares. In any election of persons to serve on our board of directors, Invus will be obligated to vote all of the shares of common stock held by it and its affiliates in favor of the directors nominated by our board of directors, as long as we have complied with our obligation with respect to the designation of members of our board of directors described above and the individuals designated by Invus for election to our board of directors have been nominated, and, if applicable, are serving on our board of directors. With respect to all other matters submitted to a vote of the holders of our common stock, Invus will be obligated to vote any shares that it acquired from third parties in excess of 40% (or, if higher, its then pro rata amount) of the total number of outstanding shares of common stock, as permitted by the standstill provisions of the stockholders' agreement, in the same proportion as all the votes cast by other holders of our common stock, unless Invus and we (acting with the approval of the unaffiliated board) agree otherwise. Invus may vote all other shares of our common stock held by it in its sole discretion.

The provisions of the stockholders' agreement relating to voting will terminate on the earliest to occur of (a) August 28, 2017, (b) the date on which the percentage of all the outstanding shares of our common stock held by Invus and its affiliates falls below 10%, (c) the date on which the percentage of all outstanding shares of our common stock owned by Invus and its affiliates exceeds 50% (not counting for such purpose any shares acquired by Invus from third parties in excess of 40% (or, if higher, its then pro rata amount) of the total number of outstanding shares of our common stock, as permitted by the provisions of the stockholders' agreement), and (d) the termination of the standstill provisions in accordance with the stockholders' agreement.

Minority Protections. Invus is entitled to certain minority protections, including consent rights over (a) the creation or issuance of any new class or series of shares of our capital stock (or securities convertible into or exercisable for shares of our capital stock) having rights, preferences or privileges senior to or on parity with our common stock, (b) any amendment to our certificate of incorporation or bylaws, or amendment to the certificate of incorporation or bylaws of any of our subsidiaries, in a manner adversely affecting Invus' rights under the securities purchase agreement and the related agreements, (c) the repurchase, retirement, redemption or other acquisition of our or our subsidiaries' capital stock (or securities convertible into or exercisable for shares of our or our subsidiaries' capital stock), (d) any increase in the size of our board of directors to more than 12 members and (e) the adoption or proposed adoption of any stockholders' rights plan, "poison pill" or other similar plan or agreement, unless Invus is exempt from the provisions of such plan or agreement.

The provisions of the stockholders' agreement relating to minority protections will terminate on the earlier to occur of August 28, 2017 and the date on which Invus and its affiliates hold less than 15% of the total number of outstanding shares of our common stock.

Registration Rights. Concurrently with the execution of the securities purchase agreement, we entered into a registration rights agreement with Invus, pursuant to which Invus has certain demand and piggyback registration rights with respect to shares of our common stock acquired by Invus under the securities purchase agreement.

Related Party Transaction Policies

We have adopted written policies and procedures for the review, approval and ratification of interested transactions with related parties. Subject to certain exceptions provided in Item 404(a) of Regulation S-K, an "interested transaction" means any transaction, arrangement or relationship in which we are a participant and the amount involved will or may be expected to exceed \$120,000 in any calendar year, and in which any related party has or will have a direct or indirect material interest. A "related party" means (a) any executive officer, director, nominee for election as a director or any person beneficially owning five percent or more of our common stock and (b) any immediate family member of such parties.

All interested transactions are subject to the review and approval of our audit committee and if advance audit committee approval is not feasible, then the interested transaction will be considered for ratification at the audit committee's next regularly scheduled meeting. In determining whether to approve or ratify any interested transaction, the audit committee will consider, among other factors it may deem appropriate, whether the interested transaction is on terms no less favorable than terms generally available to an unaffiliated third party under similar circumstances and the extent of the related party's interest in the transaction. No director participates in any discussion or approval of an interested transaction for which he or she is a related party. On at least an annual basis, the audit committee reviews and assesses any ongoing interested transactions to ensure that the transaction remains appropriate.

EXECUTIVE AND DIRECTOR COMPENSATION

Compensation Discussion and Analysis

We have developed a compensation policy that is designed to attract and retain key executives responsible for our success and motivate management to enhance long-term stockholder value. The annual compensation package for executive and other officers consists primarily of three elements:

- a base salary, which reflects the responsibilities relating to the position and individual performance;
- variable annual cash bonus awards tied to the achievement of specified corporate and individual goals and milestones, relative to pre-established bonus targets expressed as a percentage of base salary; and
- long-term stock-based incentive awards, historically in the form of stock options.

We generally seek to set targeted total cash compensation, consisting of base salaries and annual cash bonus award targets, and total direct compensation, consisting of targeted total cash compensation and long-term stock-based incentive awards, at or near the median of a peer group of biopharmaceutical companies if such compensation level is justified by company performance, individual performance and prevailing financial conditions.

In determining peer group compensation, we use available survey data from several sources, relying principally on data from a comprehensive survey of the compensation practices of several hundred companies in the biopharmaceutical industry. We expand on this survey data with reviews of the publicly-disclosed compensation practices of a group of biopharmaceutical companies selected for comparison purposes based on one or more factors, including number of employees, revenues, stage of development, and market capitalization. In 2007, this group of companies consisted of Arena Pharmaceuticals, Inc., Array Biopharma Inc., Curagen Corporation, deCODE genetics, Inc., Exelixis, Inc., Human Genome Sciences, Inc., Incyte Corporation, Medarex, Inc., Neurocrine Biosciences, Inc., Vertex Pharmaceuticals Incorporated and ZymoGenetics, Inc. The peer group of biopharmaceutical companies for which we obtained survey data and the additional group of companies listed above do not necessarily coincide with the companies comprising the Nasdaq Biotechnology Index. In general, the compensation committee has employed the 50th and 60th percentile of the broad survey data, along with averages reported by the selected group of biopharmaceutical companies, in evaluating base salaries and bonus targets. Although we acknowledge the inherent limitations in comparing our compensation practices with the compensation practices of these companies, we believe that these comparisons are useful and important points of reference in making compensation determinations.

All compensation decisions are made by our compensation committee pursuant to authority delegated by our board of directors. In making compensation determinations and reviewing comparative data, the compensation committee reviews total direct compensation in its totality, assigning dollar values to each of the elements of such compensation, including base salary, annual cash bonus award targets and long-term stock-based incentive awards. The committee generally allocates a greater percentage of total direct compensation to long-term stock-based incentive awards in acknowledgment of the unique challenges present in the biopharmaceutical industry and in order to reinforce the alignment of interests between our executive and other officers and our stockholders.

In determining the level and composition of compensation of each of our executive and other officers, we take into account various qualitative and quantitative indicators of corporate and individual performance. Among the challenges faced by us and other companies in the biopharmaceutical industry is the unique combination of the relatively long time period typically necessary to discover, develop and commercialize drugs and the historically low success rate in doing so. As a result, in evaluating the performance of management, the compensation committee takes into consideration such factors as the progress exhibited by our drug candidates in human clinical trials, the number and quality of drug candidates in clinical trials, the pipeline of potential drug candidates for which the required regulatory filings for the initiation of clinical trials may be filed, the value and scope of strategic collaborations and alliances with leading pharmaceutical companies, and the ability to otherwise finance our operations from external sources. In addition, the compensation committee recognizes performance and achievements that are more difficult to quantify, such as the successful supervision of major corporate projects and demonstrated leadership ability.

The compensation committee may also retain compensation consultants or other advisors when it deems appropriate to assist in its evaluation of executive compensation. Pursuant to such authority, the compensation committee engaged Aon Consulting, Inc. in 2005 as an independent compensation consultant to advise the committee on matters relating to executive compensation. The compensation committee did not engage any consultants with respect to 2006 or 2007 compensation matters.

Company Performance Criteria

We generally make executive compensation determinations in February of each year, taking into account company and individual performance over the preceding year, as well as prevailing financial conditions. The compensation committee typically meets to discuss considerations relating to executive compensation determinations several times in advance of the meeting in which such determinations are actually made.

In February 2007, the compensation committee made determinations regarding 2006 bonus awards and annual stock option grants and 2007 base salaries and bonus targets, taking into account the following factors in its evaluation of corporate performance in 2006:

- the submission of the required regulatory filings and initiation of Phase 1 clinical trials for our most advanced drug candidate, LX6171;
- the submission of the required regulatory filings for the initiation of clinical trials for another drug candidate, LX1031;
- our progress relative to our objectives in advancing our other drug discovery and development programs;
- our performance relative to our objectives for our net use of cash in operations and for capital expenditures; and
- our cash and investments at the end of 2006.

The committee's compensation determinations in February 2007 reflected its assessment that we largely achieved our objectives relating to our drug discovery and development programs, collectively representing what the committee considered to be our most important objectives, fell short of our objectives relating to net use of cash in operations and for capital expenditures, and achieved our objectives relating to cash and investments at the end of the year.

In February 2008, the compensation committee made determinations regarding 2007 bonus awards and annual stock option grants and 2008 base salaries and bonus targets, taking into account the following factors in its evaluation of corporate performance in 2007:

- the completion of Phase 1 clinical trials and initiation of a Phase 2 clinical trial of our most advanced drug candidate, LX6171;
- the completion of a Phase 1a and initial Phase 1b clinical trial of another drug candidate, LX1031, with an additional Phase 1b clinical trial to be conducted in 2008;
- the submission of the required regulatory filings for the initiation of clinical trials for two of our other drug candidates, LX2931 and LX1032, with the initiation of a Phase 1 clinical trial of LX2931;
- our progress relative to our objectives in advancing our other drug discovery and development programs;
- our performance relative to our objectives for our net use of cash in operations and for capital expenditures; and
- our cash and investments relative to our objectives at the end of 2007, reflecting the completion of our financing arrangement with Invus, L.P. described under the heading "Transactions with Related Persons — Arrangements with Invus" and the establishment of our financing arrangement with Symphony Icon Holdings LLC and Symphony Icon, Inc. for the clinical development of LX6171, LX1031 and LX1032.

The committee's compensation determinations in February 2008 reflected its assessment that we achieved our objectives relating to our drug discovery and development programs, collectively representing what the committee considered to be our most important objectives, fell short of our objectives relating to net use of cash in operations and for capital expenditures and exceeded our objectives relating to cash and investments at the end of the year. Taking into account the balance of factors described above, it was the committee's assessment that our overall corporate objectives were achieved.

Base Salary

Base salary of executive and other officers is established through negotiation between the company and the officer at the time he or she is hired, and then subsequently adjusted when the officer's base compensation is subject to review or reconsideration. While we have entered into employment agreements with certain of our executive officers, these agreements provide that base salaries after the initial year will be reviewed and determined by the compensation committee. When establishing base salary levels for executive and other officers, the compensation committee, in accordance with its general compensation policy, considers numerous factors, including the responsibilities relating to the position, the qualifications of the executive and the relevant experience the individual brings to the company, strategic goals for which the executive has responsibility, and compensation levels of companies at a comparable stage of development who compete with us for business, scientific and executive talents. When considering increases to base salary levels for officers, which typically occurs each February, we consider individual and company performance in addition to the foregoing factors. No predetermined weights are given to any one of these factors.

We left 2006 and 2005 base salaries of each of our executive officers unchanged from the rate established in February 2004. We increased the base salaries of each of our executive officers in February 2007 and 2008. The base salaries of our executive officers are generally competitive with those paid by our peer group companies, with most falling near the median for such peer group companies. In establishing base salaries for 2006, 2007 and 2008, we considered the competitiveness of our cash compensation arrangements for executive officers and our cash position and needs for the applicable year.

Incentive Compensation

Cash Bonus Awards

In addition to base salary, we may award variable annual cash bonus awards to executive and other officers depending on the extent to which certain predefined corporate and personal performance goals are achieved. These performance goals include those discussed generally above, as well as strategic and operational goals for the company as a whole. We typically consider the award of cash bonuses each February relating to performance for the preceding year. For each of our officers, the compensation committee establishes a bonus target, expressed as a percentage of base salary, which is used to determine the cash bonus amount, assuming that corporate and individual goals are fully achieved. The compensation committee retains broad discretion over the amount and payment of such awards.

In determining the cash bonus awards paid in February 2007 with respect to 2006 performance, the compensation committee included the relevant factors described above under "— Company Performance Criteria" in its evaluation of corporate performance. After taking into account these factors, the compensation committee determined that our objectives for the year had been largely but not fully achieved, and awarded bonuses for 2006 performance to executive officers other than our president and chief executive officer in amounts reflecting such partial achievement. In determining the bonus payable to Dr. Sands, our president and chief executive officer, the compensation committee also took into account the competitiveness of his overall level of compensation and his contributions to the company, and awarded a bonus for 2006 performance above his bonus target for the year.

In determining the cash bonus awards paid in February 2008 with respect to 2007 performance, the compensation committee included the relevant factors described above under "— Company Performance Criteria" in its evaluation of corporate performance. After taking into account these factors, the compensation committee determined that our objectives for the year had been achieved, and awarded a bonus for 2007 performance to Dr. Sands, our president and chief executive officer, in an amount reflecting such achievement. In determining the bonus payable to executive officers other than Dr. Sands, the compensation committee also took into account their contributions to the company, and awarded bonuses for 2007 performance above their bonus targets for the year.

Stock-Based Awards

All of our employees, including our executive and other officers, are eligible to receive long-term stock-based incentive awards under our 2000 Equity Incentive Plan as a means of providing such individuals with a continuing proprietary interest in our success. These grants are typically awarded each February and align the interests of our employees and our stockholders by providing significant incentives for our employees to achieve and maintain high levels of performance. Our 2000 Equity Incentive Plan enhances our ability to attract and retain the services of qualified individuals. Factors considered in determining whether and in what amounts such awards are granted to an officer include the executive's position, his or her performance and responsibilities, the amount of stock options currently held by the officer, the vesting schedules of any such options and the officer's other compensation. While we do not adhere to any firmly established formulas or schedules for the issuance of awards such as options or restricted stock, we take into account, in making award decisions, the total direct compensation objectives described above. In addition, we will generally tailor the terms of any such grant to achieve its goal as a long-term incentive award by providing for a vesting schedule encompassing several years.

In February 2007 and 2008, the compensation committee approved annual stock option grants to executive officers and other employees who satisfied eligibility requirements, including time of service. In making such grants, the compensation committee considered corporate and individual performance in the prior year, total direct compensation objectives for individual officers, and information regarding stock option grants made by other companies in the biotechnology industry.

Summary Compensation Table for 2007

The following table presents summary information regarding the compensation of each of Arthur T. Sands, M.D., Ph.D., our president and chief executive officer, Julia P. Gregory, our executive vice president and chief financial officer, and our three other most highly compensated executive officers for the year ended December 31, 2007. We have entered into employment agreements with each of the named executive officers and the material terms of those employment agreements are described below.

Based on the summary compensation information provided below, "Salary" accounted for approximately 36% and 37% of the total compensation paid to the named executive officers in 2006 and 2007, respectively, and "Bonus" accounted for approximately 14% and 16% of the total compensation paid to the named executive officers for 2006 and 2007, respectively.

Name and Position	Year	Salary	Bonus	Option Awards ⁽¹⁾	All Other Compensation ⁽²⁾	Total
Arthur T. Sands, M.D., Ph.D.	2007	\$ 522,875	\$ 265,000	\$ 908,842	\$ 6,339	\$ 1,703,056
President, Chief Executive Officer and Director	2006	\$ 473,000	\$ 300,000	\$ 792,267	\$ 373,466 ⁽³⁾	\$ 1,938,733
Julia P. Gregory	2007	\$ 334,250	\$ 120,000	\$ 344,121	\$ 6,106	\$ 804,477
Executive Vice President and Chief Financial Officer	2006	\$ 329,000	\$ 80,000	\$ 332,168	\$ 5,974	\$ 747,142
Alan J. Main, Ph.D.	2007	\$ 323,375	\$ 130,000	\$ 244,633	\$ 6,090	\$ 704,098
Executive Vice President of Pharmaceutical Research	2006	\$ 312,000	\$ 90,000	\$ 220,103	\$ 5,949	\$ 628,052
Jeffrey L. Wade, J.D.	2007	\$ 316,500	\$ 130,000	\$ 326,967	\$ 6,079	\$ 779,546
Executive Vice President and General Counsel	2006	\$ 292,000	\$ 80,000	\$ 290,675	\$ 5,920	\$ 668,595
Brian P. Zambrowicz, Ph.D.	2007	\$ 340,875	\$ 140,000	\$ 449,001	\$ 6,114	\$ 935,990
Executive Vice President and Chief Scientific Officer	2006	\$ 312,000	\$ 120,000	\$ 362,435	\$ 5,949	\$ 800,384

(1) Reflects the dollar amount recognized for financial statement reporting purposes for the years ended December 31, 2006 and 2007 in accordance with FAS 123(R) (but disregarding forfeiture estimates related to service-based vesting conditions) and accordingly, includes amounts from options granted prior to 2006. See the information appearing under the heading entitled "Stock-Based Compensation" in footnote 2 to our consolidated financial statements included as part of our Annual Report on Form 10-K for the year ended December 31, 2007 for certain assumptions made in the valuation of options granted in the years ended December 31, 2007, 2006 and 2005. See the information appearing under the heading entitled "Stock-Based Compensation" in footnote 12 to our consolidated financial statements included as part of our Annual Report on Form 10-K for the year ended December 31, 2004 for certain assumptions made in the valuation of options granted in the years ended December 31, 2004, 2003 and 2002.

(2) Includes the following amounts in respect of company matching contributions under our 401(k) plan and company-paid premiums for group term life insurance. The company-paid life insurance premiums reflect payments for group term life policies maintained for the benefit of all employees.

Name	Year	Company 401(k)	Company-Paid
		Matching Contribution	Group Term Life Insurance Premiums
Arthur T. Sands, M.D., Ph.D.	2007	\$ 5,625	\$ 714
	2006	\$ 5,500	\$ 681
Julia P. Gregory	2007	\$ 5,625	\$ 481
	2006	\$ 5,500	\$ 474
Alan J. Main, Ph.D.	2007	\$ 5,625	\$ 465
	2006	\$ 5,500	\$ 449
Jeffrey L. Wade, J.D.	2007	\$ 5,625	\$ 454
	2006	\$ 5,500	\$ 420
Brian P. Zambrowicz, Ph.D.	2007	\$ 5,625	\$ 489
	2006	\$ 5,500	\$ 449

(3) Reflects a February 2006 agreement with Dr. Sands terminating our obligation under his employment agreement to fund a split-dollar life insurance policy for his benefit, pursuant to which we (a) agreed to forego our right under the split-dollar agreement with the trust that owns the policy to the reimbursement of \$147,828 in premiums that we previously paid for such policy prior to 2002 and (b) made a payment to Dr. Sands of \$219,457 enabling him to pay, for his own account, the premiums under the policy for 2004 and 2005 and the taxes associated with the termination of the trust's reimbursement obligations under the split-dollar agreement. We entered into the employment agreement with Dr. Sands in October 1999 and entered into the split-dollar agreement with the trust that owns the policy in October 2000.

Employment Agreements

In October 1999, we entered into an employment agreement with Arthur T. Sands, M.D., Ph.D., our president and chief executive officer, which was subsequently restated in February 2006. Under the agreement, Dr. Sands receives a base salary, currently \$560,000 a year, subject to adjustment, with an annual discretionary bonus based upon specific objectives to be determined by the compensation committee. The employment agreement is at-will and contains a non-competition agreement. The agreement also provides for certain severance payments upon the termination of Dr. Sands' employment, as described below under the heading "Executive and Director Compensation — Potential Payments upon Termination or Change in Control."

In February 2000, we entered into an employment agreement with Julia P. Gregory to serve as our executive vice president and chief financial officer starting in February 2000. Under the agreement, Ms. Gregory receives a base salary, currently \$350,000 a year, subject to adjustment, with an annual discretionary bonus based upon specific objectives to be determined by the compensation committee. The employment agreement is at-will and contains a non-competition agreement. The agreement also provides for certain severance payments upon the termination of Ms. Gregory's employment, as described below under the heading "Executive and Director Compensation — Potential Payments upon Termination or Change in Control."

In July 2001, we entered into an employment agreement with Alan J. Main, Ph.D., then our senior vice president, Lexicon Pharmaceuticals. In February 2007, Dr. Main was named executive vice president of pharmaceutical research. Under the agreement, Dr. Main receives a base salary, currently \$340,000 a year, subject to adjustment, with an annual discretionary bonus based upon specific objectives to be determined by the compensation committee. The employment agreement is at-will and contains a non-competition agreement. The agreement also provides for certain severance payments upon the termination of Dr. Main's employment, as described below under the heading "Executive and Director Compensation — Potential Payments upon Termination or Change in Control."

In December 1998, we entered into an employment agreement with Jeffrey L. Wade, J.D. to serve as our senior vice president and chief financial officer starting in January 1999. In February 2000, Mr. Wade was named executive vice president and general counsel. Under the agreement, Mr. Wade receives a base salary, currently \$340,000 a year, subject to adjustment, with an annual discretionary bonus based upon specific objectives to be determined by the compensation committee. The employment agreement is at-will and contains a non-competition agreement. The agreement also provides for certain severance payments upon the termination of Mr. Wade's employment, as described below under the heading "Executive and Director Compensation — Potential Payments upon Termination or Change in Control."

In February 2000, we entered into an employment agreement with Brian P. Zambrowicz, Ph.D., then our senior vice president of genomics. Dr. Zambrowicz was named executive vice president of research in August 2002 and executive vice president and chief scientific officer in February 2007. Under the agreement, Dr. Zambrowicz receives a base salary, currently \$365,000 a year, subject to adjustment, with an annual discretionary bonus based upon specific objectives to be determined by the compensation committee. The employment agreement is at-will and contains a non-competition agreement. The agreement also provides for certain severance payments upon the termination of Dr. Zambrowicz's employment, as described below under the heading "Executive and Director Compensation — Potential Payments upon Termination or Change in Control."

Grants of Plan-Based Awards in 2007

The following table presents each grant of stock options in 2007 to the individuals named in the summary compensation table.

Name	Grant Date	Number of Securities Underlying Options	Exercise Price of Option Awards	Closing Market Price on the Grant Date	Grant Date Fair Value of Options
Arthur T. Sands, M.D., Ph.D.	2/13/2007	340,000	\$ 3.94	\$ 3.95	\$ 999,532
Julia P. Gregory	2/13/2007	100,000	\$ 3.94	\$ 3.95	\$ 293,980
Alan J. Main, Ph.D.	2/13/2007	100,000	\$ 3.94	\$ 3.95	\$ 293,980
Jeffrey L. Wade, J.D.	2/13/2007	120,000	\$ 3.94	\$ 3.95	\$ 352,776
Brian P. Zambrowicz, Ph.D.	2/13/2007	200,000	\$ 3.94	\$ 3.95	\$ 587,960

Each of the options in the foregoing table was granted under our 2000 Equity Incentive Plan and expires on the tenth anniversary of the grant date. Each option vests with respect to 25% of the shares underlying the option on the first anniversary of the grant date and 1/48th per month for each month of service thereafter. Each option becomes fully vested with respect to all remaining unvested shares upon a change in control of our company. In accordance with the process for determination of fair market value under the plan, the exercise price for each option is equal to the closing price of our common stock, as quoted on the Nasdaq Global Market, on the last trading day prior to the grant date. The exercise price for each option may be paid in cash or in shares of our common stock valued at fair market value on the exercise date or through a cashless exercise procedure involving a same-day sale of the purchased shares.

Outstanding Equity Awards at December 31, 2007

The following table presents information about unexercised options that were held by each of the individuals listed in the summary compensation table as of December 31, 2007.

	Number of Securities Underlying Unexercised Options		Option Exercise Price	Option Expiration Date
	Exercisable	Unexercisable ⁽¹⁾		
Arthur T. Sands, M.D., Ph.D.	900,000	—	\$ 2.50	9/29/2008
	555,000	—	\$ 2.50	2/3/2010
	100,000	—	\$ 14.44	2/2/2011
	170,000	—	\$ 9.38	2/19/2012
	135,000	—	\$ 3.90	2/14/2013
	143,784	6,216	\$ 7.59	2/12/2014
	106,272	43,728	\$ 5.76	2/18/2015
	174,192	205,808	\$ 4.00	2/1/2016
	340,000	\$ 3.94	2/13/2017	
Julia P. Gregory	433,000	—	\$ 2.50	2/8/2010
	60,000	—	\$ 14.44	2/2/2011
	90,000	—	\$ 9.38	2/19/2012
	72,000	—	\$ 3.90	2/14/2013
	71,892	3,108	\$ 7.59	2/12/2014
	53,136	21,864	\$ 5.76	2/18/2015
	45,840	54,160	\$ 4.00	2/1/2016
	—	100,000	\$ 3.94	2/13/2017
Alan J. Main, Ph.D.	49,001	—	\$ 1.97	12/14/2009
	300,000	—	\$ 10.93	7/12/2011
	15,000	—	\$ 9.38	2/19/2012
	54,000	—	\$ 3.90	2/14/2013
	47,928	2,072	\$ 7.59	2/12/2014
	35,424	14,576	\$ 5.76	2/18/2015
	29,796	35,204	\$ 4.00	2/1/2016
	—	100,000	\$ 3.94	2/13/2017
Jeffrey L. Wade, J.D.	372,500	—	\$ 2.50	1/13/2009
	135,000	—	\$ 2.50	2/3/2010
	50,000	—	\$ 14.44	2/2/2011
	65,000	—	\$ 9.38	2/19/2012
	54,000	—	\$ 3.90	2/14/2013
	57,513	2,487	\$ 7.59	2/12/2014
	42,508	17,492	\$ 5.76	2/18/2015
	55,008	64,992	\$ 4.00	2/1/2016
—	120,000	\$ 3.94	2/13/2017	
Brian P. Zambrowicz, Ph.D.	480,000	—	\$ 2.50	9/29/2008
	210,000	—	\$ 2.50	2/3/2010
	50,000	—	\$ 14.44	2/2/2011
	75,000	—	\$ 9.38	2/19/2012
	63,000	—	\$ 3.90	2/14/2013
	67,099	2,901	\$ 7.59	2/12/2014
	49,593	20,407	\$ 5.76	2/18/2015
	77,928	92,072	\$ 4.00	2/1/2016
—	200,000	\$ 3.94	2/13/2017	

⁽¹⁾ Each option vests with respect to 25% of the shares underlying the option on the first anniversary of the grant date and 1/48th per month for each month of service thereafter.

Option Exercises in 2007

The following table presents information about option exercises in 2007 by each of the individuals listed in the summary compensation table. Amounts shown under the column "Value Realized on Exercise" are based on the market price of our common stock on the date of exercise, without taking into account any taxes that may be payable in connection with the transaction, less the exercise price paid for the purchased shares.

Name	Number of Shares Acquired on Exercise	Value Realized on Exercise
Arthur T. Sands, M.D., Ph.D.	300,000	\$ 603,999
Julia P. Gregory	—	—
Jeffrey L. Wade, J.D.	—	—
Brian P. Zambrowicz, Ph.D.	90,000	\$ 192,000
Alan J. Main, Ph.D.	—	—

Potential Payments upon Termination or Change in Control

Employment Agreements

Arthur T. Sands, M.D., Ph.D. Our employment agreement with Dr. Sands provides that if we terminate his employment without "cause," if Dr. Sands terminates his employment for "good reason," or if his employment is terminated at the end of any renewal term through notice of non-renewal, we will pay Dr. Sands his then-current salary for twelve months pursuant to our normal payroll procedures, plus an additional single sum payment equal to his full target bonus for the year in which the termination occurred.

Under our employment agreement with Dr. Sands, "good reason" means any of the following, without Dr. Sands' prior written consent:

- any reduction in Dr. Sands' salary, followed by Dr. Sands terminating his employment for "good reason" within 120 days after receiving notice of such reduction;
- any breach by our company of any material provision of the agreement, followed by Dr. Sands terminating his employment for "good reason" within 120 days after receiving notice of such breach;

- a substantial and adverse change in Dr. Sands' duties, control, authority, status or position, or the assignment to Dr. Sands of any duties or responsibilities which are materially inconsistent with such status or position, or a material reduction in the duties and responsibilities exercised by Dr. Sands, or a loss of title, loss of office, loss of significant authority, power or control, or any removal of Dr. Sands from, or any failure to reappoint or reelect him to his positions as chief executive officer and director, followed by Dr. Sands terminating his employment for "good reason" within 120 days after receiving notice of any such action;
- following a "change in control," the failure by the surviving entity to expressly assume and agree to continue and perform the agreement in the same manner as we would otherwise be required to perform if the "change in control" had not occurred, followed by Dr. Sands terminating his employment for "good reason" within six months after receiving actual notice of such failure; or
- following a "change in control," the failure by the surviving entity to continue any pension, medical, health-and-accident, life insurance, or disability income plan or program in which Dr. Sands was participating at the time of the "change in control," or the taking of any action by the surviving entity that would adversely affect Dr. Sands' participation in or materially reduce his benefits under any such plan that was enjoyed by him immediately prior to the "change in control," followed by Dr. Sands terminating his employment for "good reason" within six months after receiving actual notice of such failure or action.

Julia P. Gregory. Our employment agreement with Ms. Gregory provides that if we terminate her employment without "cause" or if Ms. Gregory terminates her employment for "good reason," we will pay Ms. Gregory her then-current salary for twelve months pursuant to our normal payroll procedures, plus an additional single sum payment equal to 50% of her target bonus for the year in which the termination occurred. If her employment is terminated at the end of any renewal term through notice of non-renewal, we will pay Ms. Gregory her then-current salary for six months pursuant to our normal payroll procedures.

Under our employment agreement with Ms. Gregory, "good reason" means any of the following, without Ms. Gregory's prior written consent:

- any reduction in Ms. Gregory's salary, followed by Ms. Gregory terminating her employment for "good reason" within 120 days after receiving notice of such reduction;
- any breach by our company of any material provision of the agreement, followed by Ms. Gregory terminating her employment for "good reason" within 120 days after receiving notice of such breach;
- following a "change in control," the failure by the surviving entity to expressly assume and agree to continue and perform the agreement in the same manner as we would otherwise be required to perform if the "change in control" had not occurred, followed by Ms. Gregory terminating her employment for "good reason" within 12 months after receiving actual notice of such failure;
- any material reduction of Ms. Gregory's duties or responsibilities, followed by Ms. Gregory terminating her employment for "good reason" within 12 months after receiving actual notice of such reduction; or
- following a "change in control," the failure by the surviving entity to continue any pension, medical, health-and-accident, life insurance, or disability income plan or program in which Ms. Gregory was participating at the time of the "change in control," or the taking of any action by the surviving entity that would adversely affect Ms. Gregory's participation in or materially reduce her benefits under any such plan that was enjoyed by her immediately prior to the "change in control," followed by Ms. Gregory terminating her employment for "good reason" within 12 months after receiving actual notice of such failure or action.

Alan J. Main, Ph.D. Our employment agreement with Dr. Main provides that if we terminate his employment without "cause" or if Dr. Main terminates his employment for "good reason," we will pay Dr. Main his then-current salary for twelve months pursuant to our normal payroll procedures, plus an additional single sum payment equal to 50% of his target bonus for the year in which the termination occurred. If his employment is terminated at the end of any renewal term through notice of non-renewal, we will pay Dr. Main his then-current salary for six months pursuant to our normal payroll procedures.

Under our employment agreement with Dr. Main, "good reason" means any of the following, without Dr. Main's prior written consent:

- any reduction in Dr. Main's salary, followed by Dr. Main terminating his employment for "good reason" within 120 days after receiving notice of such reduction;
- any breach by our company of any material provision of the agreement, followed by Dr. Main terminating his employment for "good reason" within 120 days after receiving notice of such breach;
- any material reduction of Dr. Main's authority, duties or responsibilities, followed by Dr. Main terminating his employment for "good reason" within 120 days after receiving actual notice of such reduction;
- following a "change in control," the failure by the surviving entity to expressly assume and agree to continue and perform the agreement in the same manner as we would otherwise be required to perform if the "change in control" had not occurred, followed by Dr. Main terminating his employment for "good reason" within 12 months after receiving actual notice of such failure; or
- following a "change in control," the failure by the surviving entity to continue any pension, medical, health-and-accident, life insurance, or disability income plan or program in which Dr. Main was participating at the time of the "change in control," or the taking of any action by the surviving entity that would adversely affect Dr. Main's participation in or materially reduce his benefits under any such plan that was enjoyed by him immediately prior to the "change in control," followed by Dr. Main terminating his employment for "good reason" within 12 months after receiving actual notice of such failure or action.

Jeffrey L. Wade, J.D. Our employment agreement with Mr. Wade provides that if we terminate his employment without "cause" or if Mr. Wade terminates his employment for "good reason," we will pay Mr. Wade his then-current salary for twelve months pursuant to our normal payroll procedures, plus an additional single sum payment equal to 50% of his target bonus for the year in which the termination occurred, provided that if such termination occurs within 120 days following a reduction in his salary, the salary continuation payments shall be based on Mr. Wade's salary prior to such reduction. If his employment is terminated at the end of any renewal term through notice of non-renewal, we will pay Mr. Wade his then-current salary for six months pursuant to our normal payroll procedures.

Under our employment agreement with Mr. Wade, "good reason" means any of the following, without Mr. Wade's prior written consent:

- any reduction in Mr. Wade's salary, followed by Mr. Wade terminating his employment for "good reason" within 120 days after receiving notice of such reduction;
- any breach by our company of any material provision of the agreement, followed by Mr. Wade terminating his employment for "good reason" within 120 days after receiving notice of such breach;
- following a "change in control," the failure by the surviving entity to expressly assume and agree to continue and perform the agreement in the same manner as we would otherwise be required to perform if the "change in control" had not occurred, followed by Mr. Wade terminating his employment for "good reason" within 12 months after receiving actual notice of such failure;
- any material reduction of Mr. Wade's duties or responsibilities, followed by Mr. Wade terminating his employment for "good reason" within 12 months after receiving actual notice of such reduction; or
- following a "change in control," the failure by the surviving entity to continue any pension, medical, health-and-accident, life insurance, or disability income plan or program in which Mr. Wade was participating at the time of the "change in control," or the taking of any action by the surviving entity that would adversely affect Mr. Wade's participation in or materially reduce his benefits under any such plan that was enjoyed by him immediately prior to the "change in control," followed by Mr. Wade terminating his employment for "good reason" within 12 months after receiving actual notice of such failure or action.

Brian P. Zambrowicz, Ph.D. Our employment agreement with Dr. Zambrowicz provides that if we terminate his employment without "cause" or if Dr. Zambrowicz terminates his employment for "good reason," we will pay Dr. Zambrowicz his then-current salary for twelve months pursuant to our normal payroll procedures, plus an additional single sum payment equal to 50% of his target bonus for the year in which the termination occurred. If his employment is terminated at the end of any renewal term through notice of non-renewal, we will pay Dr. Zambrowicz his then-current salary for six months pursuant to our normal payroll procedures.

Under our employment agreement with Dr. Zambrowicz, "good reason" means any of the following, without Dr. Zambrowicz's prior written consent:

- any reduction in Dr. Zambrowicz's salary, followed by Dr. Zambrowicz terminating his employment for "good reason" within 120 days after receiving notice of such reduction;
- any breach by our company of any material provision of the agreement, followed by Dr. Zambrowicz terminating his employment for "good reason" within 120 days after receiving notice of such breach;
- following a "change in control," the failure by the surviving entity to expressly assume and agree to continue and perform the agreement in the same manner as we would otherwise be required to perform if the "change in control" had not occurred, followed by Dr. Zambrowicz terminating his employment for "good reason" within 12 months after receiving actual notice of such failure;
- any material reduction of Dr. Zambrowicz's duties or responsibilities, followed by Dr. Zambrowicz terminating his employment for "good reason" within 12 months after receiving actual notice of such reduction; or
- following a "change in control," the failure by the surviving entity to continue any pension, medical, health-and-accident, life insurance, or disability income plan or program in which Dr. Zambrowicz was participating at the time of the "change in control," or the taking of any action by the surviving entity that would adversely affect Dr. Zambrowicz's participation in or materially reduce his benefits under any such plan that was enjoyed by him immediately prior to the "change in control," followed by Dr. Zambrowicz terminating his employment for "good reason" within 12 months after receiving actual notice of such failure or action.

Under each of our employment agreements with the individuals named in the summary compensation table, "cause" means any of the following:

- the individual having engaged in intentional misconduct causing our material violation of any state or federal laws;
- the individual having engaged in a theft of corporate funds or corporate assets or in a material act of fraud upon us;
- an act of personal dishonesty taken by the individual that was intended to result in personal enrichment of the individual at our expense;
- the individual's final conviction in a court of competent jurisdiction of a felony; or
- a breach by the individual during his or her employment of the conflict of interest, confidential information and non-competition covenants under the agreement, if such breach results in a material injury to our company.

Under each of our employment agreements with the individuals named in the summary compensation table, a "change in control" shall have occurred upon any of the following events:

- any person, other than certain specified persons, becomes the beneficial owner of securities representing 35% or more of the combined voting power of our outstanding voting securities;
- the approval by our stockholders of a reorganization, merger, or consolidation pursuant to which our stockholders immediately prior to such reorganization, merger or consolidation do not, immediately thereafter, own or control more than 50% of the combined voting power of the surviving entity's outstanding voting securities in substantially the same proportions as prior to such reorganization, merger or consolidation;
- our liquidation or dissolution or the sale of all or substantially all of our assets;
- the election by our stockholders of any person to our board of directors who has not been nominated for election by a majority of the board of directors or any duly appointed committee thereof;
- following the election or removal of directors, a majority of the board of directors consists of individuals who were not members of the board of directors two years before such election or removal, unless the election of such individuals to the board of directors has been approved in advance by directors representing a majority of the directors then in office who were directors at the beginning of the two-year period; or
- any other corporate event affecting the company deemed to be a "change in control" by the board of directors.

Stock Option Agreements

Our stock option agreements with the individuals named in the summary compensation table provide that all remaining unvested stock options shall become fully vested upon a change in control of our company. Under the stock option agreements, a "change in control" shall have occurred upon any of the following events:

- any person other than Invus, L.P. and its affiliates becomes the beneficial owner of securities representing 35% or more of the combined voting power of our outstanding voting securities;
- Invus, L.P. and its affiliates become the beneficial owner of securities representing 50% or more of the combined voting power of our outstanding voting securities;
- the approval by our stockholders of a reorganization, merger, or consolidation pursuant to which our stockholders immediately prior to such reorganization, merger or consolidation do not, immediately thereafter, own or control more than 50% of the combined voting power of the surviving entity's outstanding voting securities in substantially the same proportions as prior to such reorganization, merger or consolidation;
- our liquidation or dissolution or the sale of all or substantially all of our assets;
- the election by our stockholders of any person to our board of directors who has not been nominated for election by a majority of the board of directors or any duly appointed committee thereof;
- following the election or removal of directors, a majority of the board of directors consists of individuals who were not members of the board of directors two years before such election or removal, unless the election of such individuals to the board of directors has been approved in advance by directors representing a majority of the directors then in office who were directors at the beginning of the two-year period; or
- any other corporate event affecting the company deemed to be a "change in control" by the compensation committee.

The following table reflects the amounts the individuals named in the summary compensation table would have been entitled to receive if the foregoing termination and change-in-control events had occurred on December 31, 2007 and does not take into account any taxes that may have been payable in connection with those payments:

Name	Aggregate Salary Continuation	Bonus ⁽⁶⁾	Accelerated Portion of Stock Options ⁽⁷⁾
Arthur T. Sands, M.D., Ph.D.	\$ 530,000 ⁽¹⁾	\$ 265,000	\$ —
Julia P. Gregory	\$ 335,000 ⁽²⁾	\$ 58,625	\$ —
Alan J. Main, Ph.D.	\$ 325,000 ⁽³⁾	\$ 56,875	\$ —
Jeffrey L. Wade, J.D.	\$ 320,000 ⁽⁴⁾	\$ 56,000	\$ —
Brian P. Zambrowicz, Ph.D.	\$ 345,000 ⁽⁵⁾	\$ 69,000	\$ —

(1) Reflects aggregate salary continuation payments due as a result of our termination of Dr. Sands' employment without "cause," Dr. Sands' termination of his employment for "good reason," or the termination of Dr. Sands' employment at the end of a renewal term through notice of non-renewal.

(2) Reflects aggregate salary continuation payments due as a result of our termination of Ms. Gregory's employment without "cause" or Ms. Gregory's termination of her employment for "good reason." If Ms. Gregory's employment had been terminated at the end of a renewal term through notice of non-renewal, the aggregate salary continuation payment for Ms. Gregory would have been \$167,500.

(3) Reflects aggregate salary continuation payments due as a result of our termination of Dr. Main's employment without "cause" or Dr. Main's termination of his employment for "good reason." If Dr. Main's employment had been terminated at the end of a renewal term through notice of non-renewal, the aggregate salary continuation payment for Dr. Main would have been \$162,500.

(4) Reflects aggregate salary continuation payments due as a result of our termination of Mr. Wade's employment without "cause" or Mr. Wade's termination of his employment for "good reason." If Mr. Wade's employment had been terminated at the end of a renewal term through notice of non-renewal, the aggregate salary continuation payment for Mr. Wade would have been \$160,000.

(5) Reflects aggregate salary continuation payments due as a result of our termination of Dr. Zambrowicz's employment without "cause" or Dr. Zambrowicz's termination of his employment for "good reason." If Dr. Zambrowicz's

employment had been terminated at the end of a renewal term through notice of non-renewal, the aggregate salary continuation payment for Dr. Zambrowicz would have been \$172,500.

(6) Reflects single-sum bonus payments due as a result of our termination of the named individual's employment without "cause," the named individual's termination of his or her employment for "good reason," or in the case of Dr. Sands, the termination of his employment at the end of a renewal term through notice of non-renewal.

(7) Based on the closing price of our common stock on the Nasdaq Global Market on December 31, 2007 of \$3.03 per share, less the exercise price payable with respect to the stock options for which vesting would have been accelerated.

Director Compensation in 2007

Each non-employee member of our board of directors currently receives the following cash compensation:

- an annual retainer of \$15,000 for service on the board of directors (\$30,000 for service as non-executive chairman of the board of directors), prorated for any partial year of service;
- an annual retainer of \$2,500 for service on each committee of the board of directors of which he or she is a member (\$5,000 for service as chairman of any such committee), prorated for any partial year of service;
- a fee of \$2,500 for each meeting of the board of directors that he or she attends in person (\$500 for each telephonic meeting of the board of directors in which he or she participates); and
- a fee of \$1,000 for each committee meeting that he or she attends in person other than in connection with a meeting of the full board of directors (\$500 for each telephonic committee meeting in which he or she participates).

Arthur T. Sands, M.D., Ph.D., our president and chief executive officer, does not receive additional compensation for his service as a director. We make additional cash payments to Dr. Lefkowitz for his consulting services and to Dr. Nies for his consulting services as chairman of our medical advisory board.

Our 2000 Non-Employee Directors' Stock Option Plan provides for the grant of options to purchase shares of common stock to our non-employee directors. Non-employee directors first elected after the closing of our initial public offering in April 2000 receive an initial option to purchase 30,000 shares of common stock. In addition, all non-employee directors who have served in such capacity for six months receive an annual option to purchase 10,000 shares of common stock. All options granted under the non-employee directors' plan have an exercise price equal to the fair market value of our common stock on the date of grant.

The chairman of our board of directors receives an additional annual option under our 2000 Equity Incentive Plan to purchase 10,000 shares of common stock. All such options have an exercise price equal to the fair market value of our common stock on the date of grant.

The following table presents summary information for the year ended December 31, 2007 regarding the compensation of the non-employee members of our board of directors. Mr. Rose and Dr. Mills resigned as directors effective September 30, 2007. Ms. Wiltsey was elected as a director on February 26, 2007. Mr. Amouyal, Mr. Debbane and Mr. Sobecki were elected as directors on August 28, 2007. Dr. Swain was elected as a director on September 24, 2007.

Name	Fees Earned or Paid in Cash	Option Awards ⁽¹⁾⁽²⁾⁽³⁾	All Other Compensation	Total
Samuel L. Barker, Ph.D.	\$ 49,279	\$ 63,176	—	\$ 112,455
Philippe J. Amouyal	\$ 12,522	\$ 4,631	—	\$ 17,153
Raymond Debbane	\$ 11,999	\$ 4,631	—	\$ 16,630
Robert J. Lefkowitz, M.D.	\$ 28,500	\$ 31,588	\$ 50,000 ⁽⁴⁾	\$ 110,088
Barry Mills, J.D., Ph.D.	\$ 26,557	\$ 25,436	—	\$ 51,993
Alan S. Nies, M.D.	\$ 31,477	\$ 57,811	\$ 75,000 ⁽⁵⁾	\$ 164,288
Frank P. Palantoni	\$ 41,483	\$ 64,446	—	\$ 105,929
Clayton S. Rose	\$ 27,168	\$ 45,671	—	\$ 72,839
Christopher J. Sobecki	\$ 10,661	\$ 4,631	—	\$ 15,292
Judith L. Swain, M.D.	\$ 7,519	\$ 3,755	—	\$ 11,274
Kathleen M. Wiltsey	\$ 24,243	\$ 16,140	—	\$ 40,383

(1) Reflects the dollar amount recognized for financial statement reporting purposes for the year ended December 31, 2007 in accordance with FAS 123(R) (but disregarding forfeiture estimates related to service-based vesting conditions) and, accordingly, includes amounts from options granted prior to 2007. See the information appearing under the heading entitled "Stock-Based Compensation" in footnote 2 to our consolidated financial statements included as part of our Annual Report on Form 10-K for the year ended December 31, 2007 for certain assumptions made in the valuation of options granted in the years ended December 31, 2007, 2006 and 2005. See the information appearing under the heading entitled "Stock-Based Compensation" in footnote 12 to our consolidated financial statements included as part of our Annual Report on Form 10-K for the year ended December 31, 2004 for certain assumptions made in the valuation of options granted in the years ended December 31, 2004, 2003 and 2002.

(2) The non-employee members of our board of directors who held such position on December 31, 2007 held the following aggregate number of unexercised options as of such date:

Name	Number of Securities Underlying Unexercised Options
Samuel L. Barker, Ph.D.	114,000
Philippe J. Amouyal	30,000
Raymond Debbane	30,000
Robert J. Lefkowitz, M.D.	78,000
Alan S. Nies, M.D.	68,500
Frank P. Palantoni	50,000
Christopher J. Sobecki	30,000
Judith L. Swain, M.D.	30,000
Kathleen M. Wiltsey	30,000

(3) The following table presents the fair value of each grant of stock options in 2007 to non-employee members of our board of directors, computed in accordance with FAS 123(R):

Name	Grant Date	Number of Securities Underlying Options	Exercise Price of Option Awards	Grant Date Fair Value of Options
Samuel L. Barker, Ph.D.	4/26/2007	10,000	\$ 3.77	\$ 27,995
	4/26/2007	10,000	\$ 3.77	\$ 27,995
Philippe Amouyal	8/28/2007	30,000	\$ 3.21	\$ 67,908
Raymond Debbane	8/28/2007	30,000	\$ 3.21	\$ 67,908
Robert J. Lefkowitz, M.D.	4/26/2007	10,000	\$ 3.77	\$ 27,995
Barry Mills, J.D., Ph.D.	4/26/2007	10,000	\$ 3.77	\$ 27,995
Alan S. Nies, M.D.	4/26/2007	10,000	\$ 3.77	\$ 27,995
Frank P. Palantoni	4/26/2007	10,000	\$ 3.77	\$ 27,995
Clayton S. Rose	4/26/2007	10,000	\$ 3.77	\$ 27,995
Christopher J. Sobecki	8/28/2007	30,000	\$ 3.21	\$ 67,908
Judith L. Swain, M.D.	9/24/2007	30,000	\$ 3.31	\$ 70,062
Kathleen M. Wiltsey	2/26/2007	30,000	\$ 4.26	\$ 95,355

(4) Consists of amounts payable to Dr. Lefkowitz for his consulting services.

(5) Consists of amounts payable to Dr. Nies for his consulting services as chairman of our medical advisory board.

Compensation Committee Report

The compensation committee of our board of directors is responsible for evaluating the performance of management, determining the compensation of our executive and other officers and administering our 2000 Equity Incentive Plan, under which stock option grants and other stock awards may be made to our employees.

In performing these functions, the compensation committee has reviewed and discussed with the management of our company the information set forth above under the heading "Executive and Director Compensation — Compensation Discussion and Analysis." Based upon that review and discussion, the compensation committee has recommended to the board of directors that the information

set forth above under the heading “Executive and Director Compensation — Compensation Discussion and Analysis” be included in this proxy statement and incorporated by reference into our annual report on Form 10-K for the year ended December 31, 2007.

Compensation Committee

Frank P. Palantoni (chair)
Philippe J. Amouyal
Alan S. Nies, M.D.

The foregoing compensation committee report shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference by any general statement incorporating by reference this proxy statement into any filing under the Securities Act of 1933 or under the Securities Exchange Act of 1934, except to the extent that we specifically incorporate this compensation committee report by reference.

PROPOSALS OF STOCKHOLDERS

In order for a stockholder proposal to be considered for inclusion in our proxy statement for next year’s annual meeting, we must receive the written proposal at our principal executive offices no later than November 15, 2008. Any such proposal must also comply with Securities and Exchange Commission regulations regarding the inclusion of stockholder proposals in company-sponsored proxy materials. Similarly, in order for any stockholder proposal to be otherwise raised during next year’s annual meeting, we must receive written notice of the proposal, containing the information required by our bylaws, at our principal executive offices no later than November 15, 2008. You may contact the corporate secretary at our principal executive offices for a copy of the relevant bylaw provisions for making stockholder proposals.

FINANCIAL INFORMATION

Our annual report to stockholders, including financial statements, accompanies this proxy statement but does not constitute a part of the proxy solicitation materials. **You may obtain, without charge, a copy of our annual report on Form 10-K, including the financial statements and exhibits thereto, by written request to Corporate Communications, Lexicon Pharmaceuticals, Inc., 8800 Technology Forest Place, The Woodlands, Texas 77381.**

By order of the board of directors,

/s/ Jeffrey L. Wade

Jeffrey L. Wade
Secretary

March 14, 2008
The Woodlands, Texas

LEXICON PHARMACEUTICALS, INC.
 8800 TECHNOLOGY FOREST PLACE
 THE WOODLANDS, TX 77381-4287

VOTE BY INTERNET - www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE STOCKHOLDER COMMUNICATIONS

If you would like to reduce the costs incurred by Lexicon Pharmaceuticals, Inc. in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access stockholder communications electronically in future years.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Lexicon Pharmaceuticals, Inc., c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

LEXP1

KEEP THIS PORTION FOR YOUR RECORDS

 DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

LEXICON PHARMACEUTICALS, INC.

**THE BOARD OF DIRECTORS RECOMMENDS A VOTE
 "FOR" ITEMS 1 AND 2.**

Vote on Directors

1. ELECTION OF CLASS II DIRECTORS

- Nominees:**
 01) Samuel L. Barker, Ph.D.
 02) Christopher J. Sobecki
 03) Judith L. Swain, M.D.
 04) Kathleen M. Wiltsey

For All	Withhold All	For All Except
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To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.

Vote on Proposal

2. Ratification and approval of the appointment of Ernst & Young LLP as the Company's independent auditors for the fiscal year ending December 31, 2008.
3. In their discretion, upon such other matters that may properly come before the meeting or any adjournment or adjournments thereof.

For	Against	Abstain
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0	0	0
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The shares represented by this proxy when properly executed will be voted in the manner directed herein by the undersigned Stockholder(s). **If no direction is made, this proxy will be voted FOR items 1 and 2.** If any other matters properly come before the meeting, or if cumulative voting is required, the person named in this proxy will vote in their discretion.

Please sign our name exactly as it appears hereon. When signing as attorney, executor, administrator, trustee or guardian, please add your title as such. When signing as joint tenants, all parties in the joint tenancy must sign. If a signer is a corporation, please sign in full corporate name by duly authorized officer.

Signature [PLEASE SIGN WITHIN BOX]	Date

Signature (Joint Owners)	Date

Important Notice Regarding Internet Availability of Proxy Materials for the Annual Meeting:

The Notice and Proxy Statement/Annual Report is available at www.proxyvote.com.

LEXICON PHARMACEUTICALS, INC.

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

ANNUAL MEETING OF STOCKHOLDERS

April 23, 2008

The stockholder(s) hereby appoint(s) Arthur T. Sands, M.D., Ph.D. and Jeffrey L. Wade, or either of them, as proxies, each with the power to appoint his substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of Common Stock of Lexicon Pharmaceuticals, Inc. that the stockholder(s) is/are entitled to vote at the Annual Meeting of Stockholders to be held at 1:30 p.m., local time, on April 23, 2008 at The Marriott Woodlands Waterway Hotel and Convention Center, 1601 Lake Robbins Drive, The Woodlands, Texas, and any adjournment or postponement thereof.

THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED AS DIRECTED BY THE STOCKHOLDER(S). IF NO SUCH DIRECTIONS ARE MADE, THIS PROXY WILL BE VOTED FOR THE ELECTION OF THE NOMINEES LISTED ON THE REVERSE SIDE FOR THE BOARD OF DIRECTORS AND FOR EACH PROPOSAL.

PLEASE MARK, SIGN, DATE AND RETURN THIS PROXY CARD PROMPTLY USING THE ENCLOSED REPLY ENVELOPE

CONTINUED AND TO BE SIGNED ON REVERSE SIDE